A114814

LIFE CYCLES OF AD HOC TASK GROUPS

Connie J. G. Gersick
Yale University

Technical Report No. 4
Research Program on Group Effectiveness
Yale School of Organization and Management

October, 1983

study   four groups.

—> This report covers the first of two successive studies. The main features of
the life cycle model developed in this research are tested and refined in the
second study. That study, which provides a focussed analysis of groups in a
bank, a hospital, an adolescent treatment facility, and a university, is the
author's doctoral dissertation (Gersick, 1984).

REPORT DOCUMENTATION PAGE	READ INSTRUCTIONS BEFORE COMPLETING FORM

1. REPORT NUMBER	2. GOVT ACCESSION NO. AD-A148 681	3. RECIPIENT'S CATALOG NUMBER

4. TITLE *(and Subtitle)*	5. TYPE OF REPORT & PERIOD COVERED
Life Cycles of Ad Hoc Task Groups	Interim
	6. PERFORMING ORG. REPORT NUMBER T. R. #4

7. AUTHOR(s)	8. CONTRACT OR GRANT NUMBER(s)
Connie J. G. Gersick	N00014-80C-0555

9. PERFORMING ORGANIZATION NAME AND ADDRESS	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
School of Organization and Management Yale University New Haven, CT 06520	NR 170-912

11. CONTROLLING OFFICE NAME AND ADDRESS	12. REPORT DATE
Organizational Effectiveness Research Group Office of Naval Research (Code 442) Arlington, VA 22217	October, 1983
	13. NUMBER OF PAGES 108

14. MONITORING AGENCY NAME & ADDRESS(*if different from Controlling Office*)	15. SECURITY CLASS. (*of this report*)
	Unclassified
	15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT *(of this Report)*

Approved for public release; distribution unlimited.
Reproduction in whole or in part is permitted for any purpose
of the U. S. Government.

17. DISTRIBUTION STATEMENT *(of the abstract entered in Block 20, if different from Report)*

18. SUPPLEMENTARY NOTES

19. KEY WORDS *(Continue on reverse side if necessary and identify by block number)*

Group, Development, Life Cycle, Task

20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

ABSTRACT

One tool frequently used to accomplish work in organizations is the ad hoc team--a group brought together specifically to do a particular project in a limited time period. Such teams must manage several demands simultaneously. In addition to generating the group product, team members must find appropriate ways to work together, deal with the expectations of people outside the team (e.g. supervisors, clients, constituencies), and attend to deadlines. This research uses case histories of four naturally-occurring groups to examine how a group deals with its multiple agendas through its lifespan.

Analysis revealed cyclical patterns in teams' task progress, in their attention to outsiders, and in members' interpersonal work relations. Although different teams handled these issues differently, and moved through the cycles at different speeds, they showed striking convergence in the way they alternated between periods of continuity and periods of change, and in the timing of major transitions. Implications are drawn for diagnosing and managing the problems ad hoc teams commonly encounter, particularly regarding movement through group work, equity among members, and contact between a team and its supervisor.

TABLE OF CONTENTS

```
┌─────────────────┐
│   Section I:    │
│  INTRODUCTION   │
└─────────────────┘
```

THE RESEARCH PROBLEM

In a world full of change, an organization's ability to generate novel responses to novel problems becomes extremely important. One of the tools most commonly used for this purpose is the ad hoc team--a group brought together specifically to do a special project in a limited time period. Several challenges must be met at once in such groups. The project must be designed and generated, the team members must find ways of working with each other, the expectations of people outside the team (supervisors, clients, constituencies, etc.) must be considered, and the team must keep track of its time. The overarching question of this research is: How do groups handle the multiple demands of task, team, deadlines, and relationships with outsiders through their life spans, and how does each feature affect the work as a whole?

Existing literature offers some promising leads for research on ad hoc teams. Research on group task performance, for example, shows that task design and organizational contexts have important effects on groups' work behavior (e.g. Hackman & Oldham, 1980). The literature on small group development has presented convincing and consistent developmental models of time-limited groups (Hare, 1976; Tuckman, 1965). And some of the work on problem-solving and decision-making has suggested that there are predictable cycles to creative task work (Fisher, 1970; Bales & Strodtbeck, 1951). While each of these literatures illuminates important aspects of ad hoc groups, each also suggests further questions.

The group performance literature, for example, shows how group design, task design, organizational supports and management behavior can influence team effectiveness. Yet it is unclear how such factors may affect the group differently at different times in its life cycle. The group development literature has much to say about the effect of groups' social and emotional maturation on members' ability to work together, yet little is known about how the gradual creation of work products influences groups' social development. The literature on phases in group problem solving has described the steps groups go through internally, in solving problems and making decisions. Yet the possibility that the way a group progresses through its work may affect (and be affected by) its relations with the person(s) who gave it the task remain mostly unexplored. Taken together, the three literatures suggest that, if we want to understand how a group creates a piece of work over time, we need theory that comprehends the development of the team alongside the development of the work itself--and that takes task structure and organizational context into account.

This paper is a step toward the development of such a theory. It presents a "first cut" model of how groups develop and change as they progress through creative/production tasks: tasks that require the design and

construction of unique, concrete outputs for use outside the group. It describes how members of four teams worked together from start to finish, to create their final products. The paper begins with a brief overview of the pertinent literature, an explanation of the research methodology, and a preview of the model of group life cycles. A description of the groups in the sample introduces the main body of the paper, the case material. The case material walks the reader through the lives of the four sample groups, in such a way as to illustrate each part of the model. The paper concludes with a summary of the model and its implications for managing group project work.

The Context of the Study

The literature on small groups is both vast and well surveyed. There are several recent summaries and syntheses: Hare, 1976; McGrath and Kravitz, 1982; McGrath, 1984; and Zander, 1979. Accordingly, the purpose here is a restricted one--to place the current study in context by looking briefly at three lines of research: small group development, phases in group problem-solving, and task group effectiveness. Each of these research traditions offers significant help in approaching the study of ad hoc teams. At the same time, the juxtaposition of the three poses important research questions.

Small Group Development

This research was launched in the late 1940's and early 1950's by the work of Bion in England, and Bales in the United States. Bales (1950) used a category system to evaluate the pattern of sequential phases in groups' movement toward goals. Bion (1959), working with therapy groups, explored the underlying psycho-social issues that preoccupy groups at different times, and color members' ability to work together effectively. The two approaches shaped a tradition of study that attempts to identify the universal needs and issues that underlie group life (Hare, 1976; McGrath, 1984), and--frequently, though not exclusively--to describe the universal sequence of issues and activities that emerge in groups as they progress from birth to termination. (Tuckman, 1965). The theories are predominantly based on observational studies of T-groups and therapy groups, some of which follow Bion's qualitative approach, and some of which use category systems such as Bales', to chart the waxing and waning of themes in groups' discussions over time.[1]

This research tradition has several major contributions to offer the study of ad hoc work groups. At a most abstract level, it suggests that groups are not static, but that they change and develop in important ways and in orderly stages over time. It posits that all groups must deal with certain basic issues, and that important aspects of their development over time have to do with the maturation of their capacities to deal with these issues. More specifically, it directs our attention to the relationships between groups' ability to handle some particular issues, and their ability to do work--for example, issues of dependency between the group and the leader (or other

---

[1] A thorough review and synthesis of developmental stage theories was provided by Tuckman (1965). This review has subsequently been updated by Hare (1976) and by Tuckman and Jensen (1977).

source of authority), and issues of control and intimacy among group members (Bennis & Shephard, 1974; Mann, Gibbard, & Hartman, 1967; Slater, 1966).

At the same time, this line of study raises some questions. The first arises from the comparison of this research with other bodies of literature. Since many of the groups on which these theories are based were T-groups or therapy groups, they have quite similar designs: e.g. collections of strangers, whose work centers expressly on the communication and relationships within the group, with a distinctively unconventional leader inside the group, and no obligations to produce a concrete product for outsiders' review. Other research suggests that groups' tasks and contexts have important effects on what happens inside them (Hackman & Oldham, 1980). How would we expect groups' life cycle patterns to change, as their tasks, compositions, and contexts varied?

A second question is suggested by the work itself. Although many studies found strong, similar patterns of movement from stage to stage, it is not clear how groups finish with one stage and move to the next, and when in their lives such movement is likely to occur. This question seems basic to understanding the mechanisms by which groups mature and progress over time.

Phases in Group Problem Solving

This research tradition is usually traced to two works: Dewey's (1933) discussion of individual problem-solving, and Bales and Strodtbeck's (1951) study of phases in group problem-solving. The basic assumption of the research is that problem-solving is an orderly activity. It has concentrated on discovering the empirical sequences of steps through which groups solve problems. Studies have been conducted predominantly in social psychology and communications laboratories, and have emphasized the use of content-free category systems to analyze results. These systems are designed to chart groups' discussions without any reference to the substance of what is discussed. Thus, a group that chose the best film of the year could be compared with a group that chose the winner of a gymnastics meet, but the categories would give no indication of the groups' different topics, the candidates discussed, the reasons for groups' choices, or any other aspect of what, specifically, was said. Instead, the systems have most often recorded the type of acts or statements made in the group, such as questions, statements of agreement or disagreement, negative or positive reaction, etc. Changes in the percentages of each type of statement made at different points in the group's life span are then charted. Because the categories cover both cognitive statements and expressions of affect, they have yielded a picture of changes in the emotional climate of the group along with changes in task activities. However, the focus has clearly been on the structure of group discussion, not its substantive content.

Such category systems have been able to provide objective overviews of the "syntax" groups use as they work. They have offered an uncluttered way to assess differences in the patterns that emerge in different kinds of groups, under different conditions, with respect to the distribution of acts over time, categories, and participants (McGrath, 1984).

Bales and Strodtbeck's model has exerted a powerful influence on our assumptions about group work; it is still consistently referenced as the standard model of group problem-solving development. However, the question of phases in group problem-solving does not appear to be completely settled. Some theorists have expressed doubts about the linear order of group problem-solving--and then gone on to propose relatively orderly models of their own (e.g. Fisher, 1970; Scheidel & Crowell, 1964). Recently, researchers have gone back to the original Bales and Strodtbeck study, critiquing the model on the basis of challenges to the methodology and analysis (Seeger, 1983; Bell, 1982).

This line of research is, nonetheless, clearly pertinent to the study of ad hoc work groups. It offers a considerable head start in making sense of group work by articulating identifiably different steps in group problem-solving, and by specifying which steps are--or ought to be--prior to others. It also raises some interesting questions. While findings that contradict those of Bales and Strodtbeck could be taken as occasion for criticizing the rigor of the original study, they could also serve as a springboard for a further question: How can the mix of order and disorder in group work be understood and reconciled?

A second question is suggested by the combination of this research with the small group development studies. Small-group theorists propose that groups' orientation toward authority changes importantly over time, and theories of problem-solving development posit that groups go through a series of different activities over time, as they work on tasks. What might the interaction be, then, between groups' disposition toward fulfilling task requirements imposed by outside authority figures, and their developing cognitive grasp of the task? Might it be, for example, that a group's stage of socio-emotional development could make members especially anxious about fulfilling authority figures' expectations, at a time when it was still too early in their work process for them to understand the meaning of outside expectations for the work? The category systems used so far would be unable to deal with such a question, because they are not designed to detect changes in the substantive content of groups' discussions.

Performance Effectiveness in Task Groups

The literature on performance effectiveness in task groups encompasses thousands of studies, arrayed over a much broader spectrum of topics than the two literatures discussed above. There is a fair amount of agreement among reviewers that the field experienced an initial period of vigor and theoretical promise in the 1930's and early 1940's under the influence of Kurt Lewin, and then entered a phase in the 1950's when the number of studies rose dramatically and the laboratory experiment took prominence. This contributed some sophisticated methods to the study of groups, but left a tremendous need for theory to pull the growing and scattered collection of results together into some meaningful whole (Helmreich, Bakeman & Scherwitz, 1973; McGrath & Kravitz, 1982; McGrath, 1984; Nagao, Vollrath & Davis, 1978; Zander, 1979).

Although the diversity of the field makes it impossible to summarize here, it is possible to describe something about the questions that have

engaged contemporary researchers, and the frameworks within which they have worked. At a broad level, two kinds of questions have been prominent: (a) those having to do with the differences between what an individual would do, and what a group would do with the same task; and (b) those having to do with the links from inputs, to process, to outputs in group work. These questions have been approached through a wide variety of studies on discrete problems (e.g. choice shifts, problem-solving, bargaining and negotiating, allocation of rewards) and through experiments on interventions intended to improve group work, such as the Nominal Group Technique (Van de Ven & Delbecq, 1971), the Delphi Method (Dalkey, 1969), and brainstorming (Osborn, 1957).

There have been a number of theoretical efforts to construct frameworks to organize the diverse empirical findings about group performance. One approach that has had a pervasive influence is Steiner's (1972) work on the effects of task type and group size on group performance. Comparing research on the performance of individuals with that of groups, and using a carefully-defined typology of tasks, Steiner postulated that, for most types of tasks, groups do less well that could be expected based on the potential of their individual members. This led to the widely adopted theoretical conclusion that groups' actual performance regularly falls below its potential, because of "process losses" (i.e. the costs of coordinating and motivating individuals' contributions in a group), a proposition that has received empirical support as well.

Hackman (in press) offers an alternative framework, based on the premise that task groups' effectiveness derives from the effort, the knowledge and skill, and the appropriateness of the performance strategies that members collectively apply to their work. He identifies a set of attributes of tasks, groups, and organizational contexts expected to create conditions favorable to group effectiveness, and offers a normative guide to the design and management of task groups based on these attributes and the relations among them. This model holds the potential of showing where many of the discrete findings of group research might "plug in" to a coordinated, if complex, picture of the whole.

The contributions of this literature to the study of ad hoc task groups have mainly to do with its emphasis on aspects of tasks, groups, and organizational contexts that are critical to group work. It also presents a significant source of information about potential interventions to help improve group performance. The juxtaposition of this work with the literature on group development and problem-solving development raises some final questions. If groups are normally preoccupied with different issues at different times, if their capabilities change in fairly dramatic ways as they mature, and if their cognitive work calls for different activities at different points, how would groups' development affect the appearance of their key attributes over time? More importantly, how might developmental changes modify the relationships among task, context, and group across the group's life cycle? If such modifications normally occur, there could be substantial implications, both for our theoretical understanding of groups, and for design and intervention work with groups. The current research examines those questions.

METHOD

This study is meant to illuminate a particular class of phenomena for a particular domain of groups. Clearly, there are aspects of groups that this model ignores, and there are other types of groups to which this model is not appropriate. This section of the paper defines the domain of groups and tasks to which the model applies, examines some broad methodological contrasts between the current study and other research on group development, and describes the research process.

Research Domain

Defining Characteristics of the Groups

This study is based on a sample of naturally occurring groups observed over their entire existence. The domain includes (a) real groups, (b) convened specifically to do a particular, time limited piece of work, with (c) collective responsibility for the task. Each of these features can be explained in turn:

1. Real groups: The group is an intact and identifiable social system, whose members have interdependent relations with one another, and develop differentiated roles over time. The group is perceived as such, both by members and nonmembers (Alderfer, 1977).

2. Convened specifically to do a particular, time limited piece of work: The group's life is expected to be temporary, expected to begin and end with the initiation and completion of a time limited project. This would apply to a large percentage of the groups upon which group development theories have been based, but it rules out many groups found in organizations--e.g. standing committees with multiple duties.

3. With collective responsibility for the work: The group as a whole has responsibility for the work. This rules out coacting groups, whose members work side by side but not on a common task. It means that members are interdependent both in their work and in their decision-making about how to proceed with the work.

Defining Characteristics of the Tasks

Several authors have pointed out that the task itself has a great influence on the steps and processes a group goes through as it performs its work (e.g. Bales & Strodtbeck, 1951; McGrath & Kravitz, 1982; Roby & Lanzetta, 1958). The tasks of groups in the domain of this research have five distinguishing features. They involve (a) a specific presenting problem, requiring (b) a creative design and (c) a concrete product, for (d) external use and evaluation, to be (e) completed within a specified time period. Again, each of these features can be examined more closely:

1. A presenting problem: The group is asked to address a specific problem, albeit there may be more to the task than what is initially presented.

2. Requiring a creative design: The group is expected to design or invent its own, novel response to the problem. This feature of the task domain rules out cases where the group simply executes a pre-specified design (as with many routine work groups in organizations); discovers a pre-determinable, "correct answer" (as with many experimental problem-solving groups); or arrives at a choice among pre-specified alternatives (as with many experimental decision-making groups).

3. And a concrete product: The group is expected to construct a specific, detailed material product--something that will exist independently of the group process or the individual members themselves. This rules out groups with no substantive product, such as classes or therapy groups; as well as those problem-solving and decision-making groups whose outcome is a non-elaborated answer to a question.

4. For external use and evaluation: Both the origin of the task assignment and the use of the product occur outside the team. The group has a task delegator who provides resources and constraints, and evaluates the product. The task delegator may be one or more individual managers, or a larger organizational unit on whose behalf the group is doing the task and to which the group is responsible.

5. To be completed within a specified time period: The project has an identifiable beginning an identifiable expected deadline date.

The Domain of this Study Compared to Existing Research Domains

I have placed this study against a context of three research traditions: group performance effectiveness, small group development, and phases in group problem-solving. The first of these traditions has investigated a tremendous range of groups and tasks. While the current study fits within its purview, it would be difficult to generalize about how differences between the domain of this study and the domain of that literature might produce differences in findings. The latter two research traditions, however, have proposed relatively consistent theoretical pictures of group development, based on relatively restricted types of groups and tasks. There are some general differences between the kinds of groups and tasks included in this study, and the kinds of groups and tasks that those research traditions have examined. To the extent that similarities and differences in research domain contribute to similarities and differences in findings about group development, it is worth pointing these out.

A large majority of groups covered in existing literature on developmental processes in groups would meet several of the conditions listed above. T-groups, therapy groups, and many experimental problem-solving groups match the three characteristics of groups included in the domain: they are real groups convened for a special purpose, and members have collective responsibility for their work. Most of them also have a time limit, and experimental problem-solving groups usually have a specific presenting problem as well. Further, groups in the current domain are similar to T-groups or experimental problem-solving groups in that members must develop some means of working with each other. And, as in many experimental groups, their tasks

involve diagnosing a problem, considering some alternatives, and making decisions and choices.

There are two major characteristics of this research domain that do, however, distinguish it from many of the groups on which existing developmental models are based. First is the requirement that the groups construct a concrete product. This gives the groups in this domain at least one significant additional step to follow in the work process.

A second contrast follows from the condition that the teams be producing a concrete product for external use. In T-groups and therapy groups, there may be outsiders with stakes in the learning of individual members, but the group is not faced with an outsider's expectation of receiving a specific, collective group product. Although it is certainly possible to build outside stakeholders into experimental settings, laboratory work on problem-solving and decision making has not typically incorporated group-external relations into models of group development. For example, mock juries have significant (mock) stakeholders, but the emphasis in the research has been on influence processes among members within the team, not on tracking the attention of the team as a whole to defendant, judge, plaintiff, public, etc.

In summary, the groups in the domain of this research are not so different from those on which existing developmental theories are based that the findings of this study cannot be compared with previous findings. On the other hand, the current domain should offer the opportunity to observe some important features of temporary task groups that have been excluded from the research samples of existing work on developmental processes in groups.

The Case Approach of this Study

The choice of a case history, rather than a category method for these two studies reflects the exploratory purpose of this study. It also represents an attempt to avoid three major limitations of the content-free category systems that have been prominent for more than thirty years of research on problem-solving and discussion development in groups. The first limitation is that existing systems can tell how much a group engages in a particular activity, without indicating what that means substantively. For example, a large percentage of statements on "problem-orientation" could mean that the group did a careful job of defining its task, but it could equally well mean that it had great difficulty reaching a resolution. A second limitation is that content-free category systems, so far, have provided no way to detect whether a group is basically sticking with a particular design (with minor revisions) or making major substantive changes in the work as it goes along. A third limitation is that content-free category systems have so far afforded no way to see how a group's product does (or does not) conform to outside requirements as it develops.

This choice necessitates forgoing some of the great advantages of category systems. They provide quantifiable results that can be summarized graphically and very economically. Furthermore, they can be subjected to statistical tests of reliability and validity. This study uses a different

means of demonstrating the results: documentation. Descriptions and quotations from transcripts and interviews are used to document for the reader what is going on in the team, and what kind of progress the team has made at given points in its history. In this way, it is hoped that the reader will have enough first hand evidence to judge for herself or himself, the validity of the conclusions of the study.

Research Procedure

Sample Selection and Entry

The four groups in the study are a convenience sample, including three teams of graduate management students, and one committee of community service professionals.[2] The first three teams were recruited from management courses that required group projects. After the study was described to each class, groups were asked if they would like to volunteer. The community group was initially contacted through its leader, who set aside the beginning of the opening meeting for the group to hear about the study and decide whether or not to participate. In each case, groups were told that the purpose of the study was to generate concrete descriptions of how groups work through a task. Groups were promised that they could have feedback if they wished, after their meetings had concluded. They were asked for permission to tape record meetings.

Data Collection

Data were collected entirely through silent observation. During each meeting, a written transcript was made of group members' discussion. Notes were also taken on the opening and closing times of each meeting, the location of meetings, the times of members' arrivals and departures, seating patterns, groups' use of blackboards, etc. The student groups (but not the community group) permitted tape recording.

---

[2] A note about student groups in a naturally-occurring sample: Students have so often been used as subjects in laboratory experiments that it may be important to point out that these groups occurred in "real time" in the students' lives. Their class work was set up entirely independently of the research. The nature of their assignments--consulting to live clients coming in from outside the school--certainly underscored the degree to which the projects "counted," as did the fact that some clients were seen by some of them as potential employers. Compared with non-student groups observed in subsequent research, the classroom setting evidenced more stress on direct evaluation for a particular piece of work than many work settings, where evaluation is more global. And there was probably less emphasis on the students' projects as just one event in an ongoing, politicized net of relationships than there would be for projects in other organizations.

Feedback

After each group completed its meetings, members were contacted individually and asked whether they would like feedback, and if so, whether they preferred individual or group meetings. (The choice was offered in case members did not want to meet again as a group, though it was made clear that the content of the feedback would be the same in either case.) All the management students chose group feedback; the community professionals chose to receive feedback in subgroups. The sessions were designed to present members with a case history of their project; group-level observations about how their team accomplished its work were accompanied by illustrative meeting excerpts for discussion.

Analysis

Each group's history was analyzed after its project was finished. Written notes and tape recordings were used to produce complete transcripts, the unit of analysis being the group meeting. Every transcript was submitted to repeated, close readings, with several questions in mind: What were the major topics of discussion? What were the major arguments, questions, and decisions of the meeting? What kind of planning did the group do? Were agendas made for the meeting itself, and was any long-term planning done? Was discussion logical and structured, or free-flowing and meandering? Over the entire course of a group's meetings, what were the milestones--decisions, disagreements, or major revisions in the work itself? How were members relating to each other, and to relevant stakeholders outside the group? When were there major changes in these relationships? In broad terms, the central thread of these questions was the work itself, and the resulting analyses were as much histories of each team's emerging product as of the interaction in the group.

Each group's analysis was highly individualized. It was not until all four group feedback reports had been completed that the cases could be put together and searched for general patterns. At that point, the analysis became a process of selecting the main points from each team's feedback report, forming generalizations based on the similarities and differences observed, and then going back to the original data to see whether or not the data in fact supported the generalizations. The life cycle model did not emerge until then.

PREVIEW OF THE GROUP LIFE CYCLE MODEL

The goals of the body of the paper are to create an intimate picture of the workings of these groups, and to illuminate the proposed developmental model. The model will be presented through two major sets of issues. The first set concerns the groups' chronological development. Three aspects of this development will be explored: the influence of time, the hierarchy of work activities, and the pace at which groups worked. The second set of issues has to do with relations among people: between individual members and the group as a whole, and between the group as a whole and its outside stakeholders. These issues will be introduced now, in order to set the stage for the case material.

Chronological Issues

The Influence of Time

The groups observed here all went through four distinguishable time
periods as they worked. These time periods were a little like the "half" and
"quarter" divisions in a football game. They punctuated the time continuum
along which the performances developed. For example, the end of the third
quarter in a game always signals the same ratio of time elapsed to time
remaining, regardless of how many points have been scored. Its primary impact
is in the significance it lends to whatever score the teams have achieved at
that point. Similarly, the ends of the first, second, and third quarters may
all have predictable implications for a team's strategy planning, but a
description of the time divisions is not the same thing as a description of
its playing strategies.

For each of the groups observed here, there was an initial period that
extended from the start of the group's life, when the task was assigned and
the group set in motion, until about mid-way to the deadline: Phase I. There
was then a marked change--a period when group members stopped what they had
been doing and made a quantum advance in their work. Regardless of how much
or little progress they had made since they started, the half-way mark
appeared to signal "time to move ahead." This slice of the life cycle was a
little like a time of reckoning: it is labeled Transition. The transition
was followed by another period of work: Phase II. The Phase II work period
ended when groups again stopped what they were doing and changed their
approach to the task, near the close of their allotted time. Here too, it was
as if a whistle had blown, and members knew that they had to stop the kind of
work they were doing and go into wind-up activities. The final period is
labeled Completion. Time periods are illustrated in Figure I, below.

- -

Phase I	Transition	Phase II	Completion

|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|‾‾‾‾‾|‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾‾|‾‾‾‾‾|

CALENDAR TIME

Start: The task	Mid-point: Half way	Finish: The
is assigned and	between the date the	product is
the group is	group is convened and	due & given
convened	the deadline date	to outsider
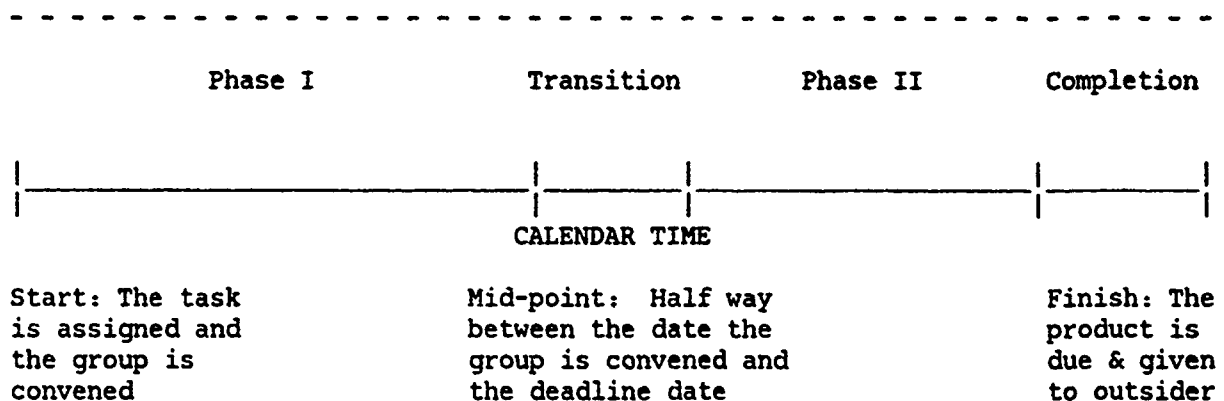
FIGURE I
The Time Periods of the Life Cycle

- -

It is hypothesized that the observed mid- and end-point shifts in the groups' work activities had very much to do with time--with group members' sense of how fast they should progress in relation to the total amount of time they had, and of when it would be "too late" or "too soon" to be doing certain parts of the task.

The Task Hierarchy

This study found four basic elements in groups' creative work. These elements are presented as a hierarchy, to denote that they are connected and dependent upon each other, without implying that teams necessarily act them out in a linear order. The elements of the hierarchy are:

1. Task Definition: The group comes to some agreement about what the task is--what problem they expect to work on. This means reaching, at minimum, a rudimentary and apparent agreement about the content of their assignment--for example, the community group's understanding that it was "designing an evaluation process."

2. Choice of Direction: Given a task, the group chooses how to go about accomplishing it. This calls for group agreement on the direction to take. Two different choice processes were observed. One team initially chose a method, or work strategy that they expected would lead them to a solution. Other groups focussed initially on choosing a particular solution to be constructed--with the strategy following implicitly from that choice.

3. Construction: This is the activity by which the group's intentions are materialized. For the groups here, it meant building up and elaborating a body of ideas that the members agreed to include in their products.

4. Evaluation: Once the product has been constructed, it can be evaluated. Every group in this sample followed up its construction work with a period of critical evaluation, measuring their drafts against criteria that they perceived would be used by audiences or users external to the group. When evaluation occurred mid-way through the group's time, it was done with major new revisions and construction work in mind. Almost like the reprise in a piece of music, it directed the group to another turn through the work activities. When evaluation occurred at the end of the group's time, it functioned more like a coda, and directed the group through the process of completing and editing the product for external consumption.

Groups' discussions did not keep all these areas perfectly separate, nor did every group address every area explicitly. Task definition was not particularly discussed in two of the groups and "choice of direction" seemed to blend piecemeal into construction work for another. But there was evidence of groups being tied to a logical process. They were unable, for example, to get construction work off the ground as long as there was significant disagreement about what direction to choose. They did not plunge back into debate over task definition in the middle of a construction period. Furthermore, each work activity was affected in quality and content by the success and content of the logically "preceding" activity.

Figure II clarifies the relationship between the time periods (Phase I, Transition, Phase II, Completion) and the hierarchy of work activities (task definition, choice of direction, construction, evaluation). The work activities are not synonymous with the time periods, and groups differed widely in the amount of time they spent on each activity. As the chart shows, two of the groups went through the hierarchy of work activities only once in the time they had, while the other two groups went through it twice.

Pace

Each observed group went through similar work activities, and each divided its life cycle into four temporal periods. However, the pace at which groups fit work activities into time was clearly not uniform. The Strategic Planners and the Centralized Fundraising Committee worked much faster than did the Novices and the Policymakers.[3]

The case materials suggest two related factors to account for the difference in pace. One has to do with a group's understanding of the task. A group that perceives a task as clear and structured will be more ready to work than a group that perceives a task as confusing and structureless. The group's perception will be an interaction of the inherent clarity of the task itself with the degree of confidence with which the group interprets it (whether they are "correct" or not). A second factor has to do with member's readiness to work together as a group. To the extent that a task requires members to pull together, work will not progress as long as this is not possible. A group may be stalemated because members cannot agree about some specific aspect of the task--and/or interpersonal conflicts may make members unwilling to share control over group decisions. It is likely that task clarity and members' willingness to work as a group are related. The more "obvious" the task is to the group, the less need for inter-member negotiation about what to do. With a cut and dried task, the work itself--not fellow members--appears to control the group's actions.

Intragroup and Intergroup Relations

The chronological issues outlined above have to do with the start-to-finish work involved in creating a group product. The second set of issues to be addressed centers around two additional aspects of group process that are closely tied to task work: the problem of commitment and equity among group members, and the problem of external requirements.

---

[3] The four teams are described in detail below. Note that "faster" is not necessarily "better." A group that spends too little time exploring a complex task, or is too quick to agree, risks costly mistakes. Janis' work on groupthink (e.g. 1971) illustrates the problems of groups reaching premature closure in their planning.

	PHASE I Start: The task is assigned and the group is convened	TRANSITION Mid-point	PHASE II	COMPLETION Finish: The product is due and given to outsider
NOVICES	Debate alternative task definitions	1. Define task	3. Construct first solution	4. Evaluate, edit complete
POLICY-MAKERS	Debate alternative solutions	2. Choose direction	3. Construct first solution	4. Evaluate, edit complete
STRATEGIC PLANNERS	1. Define task 2. Choose direction 3. Construct first solution	4. Evaluate first solution 1* Define problems of first solution 2* Plan revisions	3* Construct second solution	4* Evaluate, edit complete
CF COMMITTEE	2. Choose direction 3. Construct first solution	4. Evaluate first solution 1* Define problems of first solution 2* Plan revisions	3* Construct second solution	4* Evaluate, edit complete

Notes: The time periods are the column headings.
Work activities are numbered.
A star (*) indicates that the work activity is being repeated.

FIGURE 11

How Groups' Work Activities Fit Into the Time Periods of the Life Cycle

Individual Commitment and Equity Within the Group

Individuals' willingness to contribute to cooperative effort has been described as a function of the benefits they expect their participation to yield (e.g. see Barnard, 1968, Ch. 11; Simon, 1976, Ch. 6). The problem may be very loosely compared to the process of creating and maintaining a poker game. At the beginning, each individual has some preferences and limits about what kinds of games to play, how much money to ante, and what stakes to play for. Each individual's choice whether or not to join a game is affected by her assessment of the match between what the other potential players want, and what she wants. A collection of individuals must negotiate some agreement in order to make a game possible. As play unfolds, individuals weigh their wins and losses, and think about whether or not they want to continue. Some players may drop out; some the group's initial agreements may have to be renegotiated to keep a game alive. In task groups, members may have a very concrete (whether accurate or not) sense of the amount of influence they are exerting over the work; the amount of time, effort, and expertise they are contributing to a specific product; and the amount of compensation they are getting relative to their teammates. In the observed sample, the issue of individual commitment to the group changed over time. In the beginning, the concern was with defining the content and scope of the project and concomitantly, the kind of influence and time that members would put in. As pure anticipation of the work was replaced by a growing amount of work already done, attention shifted to the matter of equity. Cross-group variation in members' satisfaction with equity showed in members' work on the task, as well as in their feelings about the group. Commitment and equity are envisioned here as important aspects of relations between individual members and the task group.

External Requirements

One might envision the assignment of a task to a group as a simple process, where supplies and instructions are handed from the outside to the group at the beginning and a finished product is handed from the group to the outside at the end, without much interesting interaction between group and supervisor in the interim. This was not the case for the observed groups. Rather, there appeared to be some alternation between the group looking outward to get a fix on what the external agents wanted, and looking inward to create something that would "fly" within the group. The groups seemed most conscious of outsiders at the very beginning, the transition, and the very end of their life cycles. The problems of accepting and understanding a task from an external source, constructing something to fulfill requirements, and finishing a piece of work for external use and review are considered to be a central aspect of relations between the task group and the outside.

```
┌─────────────────────┐
│    Section II:      │
│  THE CASE MATERIAL  │
└─────────────────────┘
```

INTRODUCTION

The Four Groups

The groups ranged in size from three to six members. Management student groups spent 16 to 20 hours in meeting time, each over periods of about two-and-a-half weeks. The community group had four two-hour meetings, spread over three months. All four groups had to come up with written plans to address an organizational need.

There were further similarities for the management school students. These people were all placed in their groups by course instructors. Each was one of several teams in a class assigned to hear presentations from outside clients and then develop analyses and recommendations. Two of the three groups were also to give oral presentations to the clients. The groups were expected to draw on course readings and lectures, but there were clearly no pre-set answers. Course instructors provided evaluation criteria before the groups began, and students knew that everyone in a group would receive the same grade. Each group will be identified briefly below.[4]

The Novices

These people were new to each other, unfamiliar with the task, and barely acquainted with their instructor when the group began. The three women and two men who started out with the group were first year students, and since this was the first assignment for the term, they had not yet been through the process of analyzing and writing up a case. The central problem of their case was to design an affirmative action program for a local business. It was therefore important to this group that one of the women was black, and one of the men, also black, had done affirmative action work in a previous job. Group members: Will, Grace, and Alexandra (white); Louanne and Ken (black).

The Strategic Planners

This was a group of three men: Bert and Rajeev, first year students, and Jack a second year student. Jack and Bert had worked together on a previous assignment; Rajeev and Jack had known each other outside of school. All had experience doing group case reports for the present course. Their client had invented a new technology, for which demand was increasing rapidly; he wanted advice on how to expand his business.

---

[4] Groups and group members' names are disguised to protect their anonymity.

The Policymakers

The members of this group were four first-year students, three men and one woman. They were acquainted before the group began, and they had all done case work similar to the current assignment. Their class heard presentations on an international trade issue from several visiting speakers. They were to formulate U.S. policy recommendations, write a report and give a presentation to a panel of outside experts (including the visiting speakers). Group members: Andy, Paul, Jim, and Alice.

The Centralized Fundraising Committee

This was a group of professionals from four different organizations. They came together at the request of one of the four, a fundraising organization that wanted help designing an evaluation process for its recipient agencies. The organization had been formed by a coalition of agencies, looking to streamline their fundraising efforts by joining together. Over the years, the fundraising unit had become a separate organization, its membership had increased, and money had become scarce. It was now faced with conflicting demands: from the member agencies, to restore allocation decisions to them; from the community, to make tougher judgments of member agencies, and be more responsive in its allocations to changing community needs. Having gone through three years of unsuccessful attempts to formulate an evaluation policy with member agency representatives, the organization formed this small committee of professionals who knew the community but were not from member agencies.

Harriet, the group leader, was a volunteer board member from the fundraising agency. Members were Diane (a department director at CF), Phil (her assistant), Mike (a top officer of a local philanthropical foundation), Alan (a private consultant), and David (an organization specialist from a non-profit consulting agency).

Organization of the Cases

The case material is organized around the time periods of the groups' lives. Phase I, Transition, Phase II, and Completion will each be discussed in turn, in order to show similarities and differences in how the groups used their time, and to highlight time-linked shifts in work activity. Within each period, comparisons will be drawn between the faster and the slower-paced pairs of groups. This is intended to illustrate the differences in their understanding of their tasks and in their willingness to work as groups.

PHASE I

For all four groups, the first two or three meetings hung together as a cohesive stage of the lifecycle: Phase I. Opening encounters were fairly accurate previews of the scenarios that were played out over the next several meetings. It was as if each group began on a certain path, and stayed on that path until about half-way through their time.

This is illustrated by a comparison of two first meetings, one from the Novices, a slow-paced group, and one from the Strategic Planners, a fast-paced group. The selected meetings are very brief, quite different from one another, and good foreshadows of each team's Phase I life. Since relatively little editing is needed, readers will be able to see for themselves exactly how two contrasting teams got started, what issues came up and how they were dealt with.

We will then look beyond first encounters to fill out the picture of Phase I. The other two groups will be brought in, and groups' activities in the first several meetings will be discussed in some detail. By considering first the two slower groups, and then the two faster groups, it will be possible to establish the similarities within each pair as well as the differences between them.

For each pair in turn, we will look at the content and sequence of work activities: task definition, choice of direction, and construction work. Examples from the slower teams will show how teams that did not agree about task definition or choice of direction did not progress to the next level in the hierarchy of work activities. Then, examples from the faster teams will show how these first activities were dispatched and construction work begun. For each pair of teams, case analyses will attempt to show how teams' readiness to work--on the task, and with each other--affected their pace.

First Meetings: Contrasting the Novices and Strategic Planners

The Novices Begin

The Novices were members of a management class where course readings and lectures were to be applied to case problems. Students were placed in groups by the course instructors. Their case was the first one of the term, and it involved a "live" client from an organization outside the School. The Novices first met as a group a few days before the client came to give his presentation. The instructors had split the class into two halves, to provide some information about the issues that might be raised in the case and discuss mechanics of client interviewing. They suggested that student groups meet to plan questions for the client's upcoming visit. The Novices did meet, but spent most of a 45-minute first meeting on introductions. A telescoped transcript of their meeting follows:

DIALOGUE 1. The group met immediately after the split-session class, in a campus dining room. On the way to the dining room:

1 Grace: (to Ken) Did the teaching fellow tell you the "six questions" to ask a client?

2 Ken: No. But we did get some information on how to question clients.

3 Ken: (to Alexandra) Didn't you say that [another Professor's] research project took place in the client's organization?

4 Alexandra: Shh! It's supposed to be secret!

5 Ken: What! Secret that [client's organization] is racist?!

After the students are seated for lunch in the dining hall:

6 Grace: What year is everyone? (All answer in a few words.)

7 Alexandra: (to Will) How'd it go in your room?

8 Will: (talks briefly about what his half of the class did) ...it sounds the same as what you did.

9 Alexandra: I know the client. He's well respected.

10 Grace: I'd be interested to share some soft information about the client... (comments on "what's going on" in client organization)

11 Alexandra: I wonder which issue we'll [be given to] deal with?

12 Ken: The race issue. I hope we do. I was involved with that stuff in [previous job].

13 Grace: I'd like to know [how client organization got into difficulty] in the first place.

14 Alexandra: Should we talk about who we are so we know what resources we have to pull from?

15 Alexandra: (looking at Will) Want to start?

16 Will: Okay...

(Everyone in the group introduces him or herself. People describe their past work experience, and what they hope to learn from the project. Once the last person finishes introducing herself, there is a silence.)

17 Ken: (loudly) So now we know not to meet in the cafeteria anymore! [too noisy]

18 Alexandra: I talked to someone who said it takes at least 20 hours per person, and longer if you're presenting. 20 hours per person!

19 Ken: Somehow I don't see it that way, but if that's what's required...

20 Alexandra: He also said they did it very well.

21 Ken: We've got five people.

22 Alexandra: And we have a computer also. (looks at Will, a computer expert)

23 Grace: Once we find out what issue he's going with (what the client will ask the group to work on) I'd be interested to know how much information we need that he's not giving us.

24 Ken: Black people from [client organization] go to Rick's Cafe after work.

25 Alexandra: You have connections?

26 Ken: Yes!

27 Alexandra: You can be the industrial spy! (Pause) We don't really need anything formalized for Monday.

28 Will: We don't have enough information to do that. In class on Monday we'll just be five of the class of people. We'll see how the thing unfolds--and we can call him later. I just think getting together once-- that's the real purpose of this anyway.

(Discussion about when to meet next. Group sets meeting time and breaks up.)

This group did not accomplish the assignment of planning questions for the upcoming client meeting. It is clear that they neither "forgot" about it nor had too little time to do it. The topic of "questioning a client" came up three times in the first five minutes of the meeting, and again at the end of the meeting (statements 1, 2, 7, 8, 13, 27, 28). It never turned into a conversation, though, and there are signs that these people were not ready for substantive group work on the task. First, they said they didn't know enough yet to begin. They had been presented with some possible topics that the client might ask them to work on, but they didn't yet know which he would select. Alexandra ventures that nothing "formalized" has really been required, and Will says flatly, "We don't have enough information to do that." (statements 27-28) In their estimation there has been no task assignment either concrete or detailed enough to give them an imperative to start producing.

The second half of Will's statement suggests other reasons why the group did not follow the instructor's suggested agenda: "In class on Monday we'll just be five of the class of people ... I just think getting together once--that's the real purpose of this anyway." This is to say that Will, at least, does not yet expect their actions to be planned or constrained by a "group"--they are still five separate individuals who had to meet each other before they could start working together.

"Introductions" was certainly the longest sustained discussion of the meeting. It may also have been the safest. There are hints scattered through the meeting that differences among the members will interact importantly with the choices that the task may offer (or force upon) the group. All members really know at this point is that the client may ask them to work on some affirmative action problems. The question of members taking sides in this has already been foreshadowed, for example in Ken's remark about the "racist" nature of the client organization (statement 5), in Alexandra's statement about the client being "well respected" (9) and in the exchange around Grace's question about the reliability of the information the client will offer (23-27). Will they be working "against" a racist client or "for" a client whom they respect?

While Alexandra and Grace wonder what issue the client will ask them to address, and wait to receive the assignment, Ken has already made a choice: "The race issue. I hope we do." Again, there is an important underlying question. Will the client, the course instructor, or the group members themselves in fact determine what the task is, and how will this be resolved among the members? There is as much reason to wonder how the individuals in this group will interact with each other about the case, as there is uncertainty about how to carry out the task and what it will be.

In sum, there may have been many reasons why this particular collection of people spent their time with introductions rather than diving right into their assigned work of planning for their meeting with the client. Their inexperience with the work and the fact that the subject of the case was undetermined meant, not only that they may have not known what to do--it also meant they had no starting point obvious and mechanical enough to be non-controversial. Given that they did not know each other, and that disagreement looked likely, members may certainly have wanted to wait and see what the client said before committing themselves to any group decisions.

For the Novices, the interaction between task and group provided no easy place to start. But "introductions" are neither inevitable nor equally important as a first step for every group. Some groups, e.g. those that organize spontaneously at the scene of an emergency (Barnard, 1968, p. 102) begin work on the task at hand immediately, and introduce themselves much later, if ever. The Novices group was the only one that began with introductions; it was also the only one that was completely inexperienced at the task, as well as new to each other. The Strategic Planners had a very different kind of group beginning.

The Strategic Planners Begin

The Strategic Planners group of three white males was a part of the same management course as the Novices. Its life began much later in the term, after the class had had experience doing three cases. The client for their case was an inventor/entrepreneur who wanted consultation on how he should develop his growing business. The case was set within the course instructors' unit on organizational design. The Strategic Planners first convened as a group immediately following their client's presentation. This dialogue picks up after I had my entry discussion with them, about five minutes into their life cycle.

DIALOGUE 2.

1 Jack: We should try to read the material.

2 Rajeev: But this isn't an organizational design problem, it's a strategic planning problem.

(Jack and Bert agree)

3 Rajeev: I think what we have to do is prepare a way of growth.

(Nods "yes" from Jack and Bert)

4 Rajeev: Where he's really mixed up is with franchising--he could do a whole business strictly dealing with spare parts. We have to describe these packages and describe how to... (words missing)

5 Jack: (explains how the group could divide up the labor, as he and Bert did in a previous assignment)

6 Bert: Let's try to map out some meetings.

7 Jack: (to Bert) By the time you leave, we have to have the paper mapped out. What about exchanging notes? Perhaps we should each have an outline--map out what the problems are by Friday?

8 Rajeev: Let's not put our heart into it--just gross alternatives--

9 Bert: Let's try to meet Friday to map out--rough out where we want to go, and then the following Tuesday it should be a work session, because I'll be out of town and will have to have my work done.

(They agree to meet Friday, 1:00)

10 [?]: For Friday, let's work up what we see as problems--think through all he said and try to organize it.

(Pause)

11 Rajeev: It's a nice problem--very interesting--

12 Jack I wish I had it for my strategic planning--

13 Rajeev: You see the level [of the client's sophistication]--he knows the limitations--

14 Jack: He knows the limitations of his business.

(They agree that the client is pretty sharp but not totally informed.)

15 Rajeev: I don't understand why he's [talking to a bunch of students].

16 Jack: He's just gotten the technology down--he's just getting to the point where he's got his ducks in line.

17 Rajeev: I would be trying to find people to lend me money, not coming to a university--

18 Jack: But you gotta have a plan first--

19 Rajeev: Oh, a plan...yeah!

(The meeting ends after a few more comments.)

Like the Novices, the Strategic Planners first nod toward the course instructors. There is no split-session class to compare, but there is a suggestion that they "read the material." This is quickly dismissed, along with the instructor's definition of the case: "But this isn't an organizational design problem..." By the fifth statement of the discussion, the group has defined the task ("it's a strategic planning problem") and chosen a direction for the work ("what we have to do is prepare a way of growth").

The next segment of dialogue shows the group mapping out a time and work schedule. They pick a meeting time and give themselves some homework for the interim. This is based, not simply on the next date they all have free, but on a longer-term estimate about how they will have to pace themselves in order to finish on time. Moreover, it is genuine group work in that members are agreeing to act according to a shared plan (see statements 7-10). Finally, having framed the case problem and set an agenda, they size up the client and his motive for coming to the School.

This group started immediately to work on the task. No introductions were observed. The contrasts with the Novices' situation are numerous. This team had much more familiarity with the course work and the instructor. Not only had they already heard the specific case, they seemed to think they knew what it was all about. The people also knew each other better. Jack and Bert had worked together and could know what to expect of each other's task performance. Rajeev and Jack had a social relationship as well as the course experience in common. Most important, the three men immediately agreed with each other's assessments about the case.

Summary of the Two First Meetings

The discussion above has begun to explicate the difference in pace between groups that begin with "clear" vs. ambiguous group/task situations. The Novices and Strategic Planners were shown to contrast in several areas. For the Novices, (a) an ambiguous task assignment interacted with (b) an inexperienced group of (c) strangers who already showed signs of (d) disagreement about the case. They were not ready to work on the task, nor ready to work with each other as a group. For the Strategic Planners, all these factors were reversed. It is not so surprising, then, that the Novices used their first meeting for introductions, while the Strategic Planners immediately began group work.

Despite the clear differences in the groups' readiness to begin, there were some important similarities is the kinds of concerns they addressed. As described above, both groups began to express their questions and ideas of what the task would be about. Both devoted much the same kind of attention to instructors and clients. Members of both groups raised their concerns about managing their time commitments for the project. The next few paragraphs will look briefly at the latter two concerns, which have to do with external requirements and equity.

First-meeting attention to external requirements. At this point, one would expect the course instructors to have a strong influence on the groups.

They put the members together, gave the groups the tasks that constituted their raison d'etre, and outlined some steps that the groups were supposed to follow (planning client interviews for the Novices; doing reading on organization design for the Strategic Planners). However, the instructors did not figure heavily in the action for either group's first meeting. Both groups mentioned their assignments and decided not to do them--then turned their attention to other matters.

The clients seemed to be much more compelling to the groups. In their critical discussions of the clients, the groups began simultaneously to examine the newly assigned task, to define their own boundaries vis-a-vis an important outsider, and to look each other over as they compared opinions on the few pieces of data they had so far. The clients were the source of the groups' information about the case. They were also the people to whom the groups' reports were to be addressed, and whom they were supposed to help. As part of defining the work to be done, the groups had to decide what they thought the client wanted, what they thought he needed, and what they were able and willing to provide. Both groups showed concern about their client/consultant relationships. Grace in the Novices wondered how much the client would tell, and what he would withhold. Ken and Alexandra made different assessments of the client's character, and talked about "industrial spying" as a way to get around the client for information. In the Strategic Planners, Jack and Rajeev talked about how well they thought the client understood his own problems, and discussed his motives for coming to the School. What might he want that they could provide?

Besides task definition, discussion about the client may have served another function. By providing an important "they," the client can give the group a "we." If members find they all stand in the same spot in relation to the client, it can help them knit the group together. If not, the group may find it difficult to coalesce. I will come back to the functions of groups' attention to clients and supervisors, and the differences between the two, in the summary of Phase I.

First-meeting attention to individuals' commitment. Another area that both groups touched was work time. Members of both groups were anticipating the amount of time they thought the project would require and the commitment they wanted to make to it. For individuals, the match between "my needs" and teammates' intentions was a clear first meeting concern. In the Novices group, Alexandra's worry that the project would consume "20 hours per person!" got a dual response: "Somehow I don't see it that way" (response to her time estimate) "but if that's what's required..." (response to the perceived level of her commitment to doing the assignment.) The unspoken message here is "if that's what's required, that's what we will do." This indicates the beginnning of inter-member negotiation about the amount and quality of work that each wants his or her teammates, as well as him- or herself to put in. Individuals may all have come in with some assessment of how many hours they want to devote to the task and what quality product they want to aim for. Whether or not their preferred contribution would be adequate depends on the task requirements. Whether or not it would be equitable (compared to their teammates) depends on how much others want to commit to the task and how thorough a j b they want the group to do: Alexandra: "He also said they did

it very well." Ken: "We've got five people." (Note that two issues are necessarily mixed here. The group's aspiration level must be negotiated; that, in turn, implies the amount of time and effort required of individuals.)

The Strategic Planners also negotiated about time and work, though on a different level. They appeared to agree implicitly that no one would do the reading, and everyone would "map out what the problems are..." Jack's statement (7) shows that Bert had already talked to him about being out of town during the project. In effect, both Bert and Jack show concern about Bert's ability to contribute his share of the work: Jack: "By the time you leave, we have to have the paper mapped out..." Bert: "...Tuesday it should be a work session, because I'll be out of town and will have to have my work done." The group planned a schedule specifically to take this individual constraint into account and insure Bert's contribution.

First meetings as previews of later Phase I development. For the Novices and the Strategic Planners, first meetings were accurate previews of Phase I development. Members of the Novices continued to express feelings of knowing too little about the case to begin, while the nascent schism between Ken and the rest of the group over how to define the task (and how to relate to the client) grew. The Strategic Planners continued to agree on what should be done, and picked up the work almost immediately where they left off.

After First Meetings: Expanded Discussion of Phase I

The next part of the paper will look more extensively at Phase I. The two groups that have already been introduced will be followed up, and the other two groups of the sample, added. By treating the slow and the fast groups as pairs, it will be possible to see that we are examining two different patterns of group development, not simply different groups. A summary of Phase I as a whole will then relate the cases to the group life cycle model outlined earlier in this report.

The Slower Pair: The Novices and Policymakers

In both these groups, Phase I was a period of unsystematic exploration of the task content, in a climate of interpersonal tension. Attempts were made to create structured work plans, but they were unsuccessful. Each team experienced polarized arguments about the task, that appeared to overlap with interpersonal conflicts.

The slower teams' attempts to structure their work. The two dialogues below occurred very early in each group's work. They show the groups getting off to similar beginnings:

DIALOGUE 3. Novices, at the beginning of their second meeting, immediately following the client's presentation:

1 Alexandra: Do you think we should work out anything about process--like what [instructor] said? (Instructor had suggested that the groups think about planning their work, before getting into the substance of the case.)

2 Will: I suppose that's a good idea--maybe something concerning--what's a good way, given this task--I guess I think we might get more done if we--try to come up with some ideas. I've got to admit I'm unclear about...what to do--need some time just to think about it.

(Ken bursts into the room, late.)

3 Alexandra: (to Ken) We were kind of thinking that since we can't do much today, that we should just work on process.

4 Ken: (ignoring her) How'd you all feel coming out of there?

5 Will: Disorganized!

6 Ken: (laughs) Who? Him or us?

7 Will: Me. I just feel sort of going through this whole thing--it's going to take some time to really sit down and put this together and decide what you were looking for.

8 Ken: Yeah.

9 Alexandra: (to Ken) You mean you didn't like him?(client) I think he wasn't really leveling.

(Group goes into discussion of client)

DIALOGUE 4. Policymakers. Expert presentations have just concluded. Dialogue opens five minutes into the group's first meeting to work out policy.

1 Jim: Is there a way to divide up--to divide up the task--

2 Paul: (talks about having colored charts for their presentation)

3 Jim: Yeah. Is there a way to divide up the work that makes sense--rather than--or--should we, like, brainstorm on each one of these--they already gave us this outline...

4 Paul: What outline?

(Next 20 statements clarify what was in the packet the instructors handed out; what date the paper is due)

5 Jim: So basically we need to consider--we need to develop some kind of a methodology for how--how would we--what kind of criteria does the U.S. position have to meet--in our understanding of all the parties' views, and...

6 Paul: May I--suggest sort of a radical tack? ... Might we suggest that (presents his idea for the substantive policy they should recommend; group begins to discuss policies)

In both of these groups, proposals were made that the group design a plan of work. Alexandra and Will, in the Novices, talk about working out something "about process." Jim, in the Policymakers, asks the group to consider whether there is "a way to divide up the work that makes sense," and suggests using the instructors' outline. In each instance, another group member with strong ideas about the case ignores them and starts to talk about content. (See Ken's statement 4 in dialogue 3; Paul's statements 2 and 6 in dialogue 4.) And in each instance, once some substantive ideas are presented, the other members jump into discussion.

It seems "reasonable" that a group with a complicated task might want to take time for some planning, or use an outline from instructors to help get a handle on the work. The instructors, presumably, intended to help the groups with these directions. Why didn't it work? It appears that a complicated mix of things happened in these groups. The explanation I will suggest assumes two things: the members of these groups did not know how to structure their work; and they were not predisposed to begin working together as teams.

Looking at the statements that Alexandra (Novices) and Jim (Policymakers) made about structuring the work (statements 1 and 3 in dialogue 3; statements 1 and 5 in dialogue 4) it seems highly unlikely that they actually knew what they wanted their groups to do. Alexandra mentions only "working out something about process." Jim suggests developing "some kind of a methodology for how--how would we--" and trails off vaguely. However, despite the fact that their suggestions are unclear, they do constitute attempts by Jim and Alexandra to control their groups-- to set agendas. These attempts are stopped fairly forcefully--significantly, by the people with whom each team carried out a running argument during its next several meetings. Proposals to structure the teams' work, and the subsequent counter proposals to talk about content, look very much like battles for control over the groups.

The fact that these shifts in agenda were "about" control still does not explain why these groups did not structure their work. After all, team members could theoretically have struggled over how they were going to work, instead of dropping the subject. I would suggest that two factors were at play. First, as noted above, no one in these teams really seemed to know what it would have meant to plan out the work at this point. Meanwhile, it was much easier and more compelling to get into task content. The one member of each team who wanted to talk about content did bring up suggestions that were concrete. These suggestions probably offered much firmer ground for all team members to stand on--and argue over--than instructors' outlines.

The dialogues above show each of the slower teams beginning to break into two opposing camps. In each, there were sustained disagreements between those who knew what outcomes they wanted on the task (Ken and Paul, who started group content discussions) and those who had not yet decided what outcomes they wanted (Jim, and Alexandra and Will, who had suggested working on "process.") For each group, the statement of strong ideas met with resistance from the "undecideds." At least half of each group was unwilling to go along with the preferences of other members. Since each group spent so much time in disagreement, it is worth examining their arguments more closely. At what level of the work hierarchy was each team stuck; how much work did the

arguments permit or prevent, and what kinds of issues were fueling each? The Policymakers' argument will be described first, then the Novices'.

The slower teams' Phase I arguments. For the Policymakers, the arguing took the form of a verbal volleyball game. Paul "served" by stating his very definite idea of the policy the group should recommend. Other members would challenge him and he would either return the volley or concede the point and serve again. The group did cover a lot of content in this manner; however, the discussion was so free-flowing as to provide little ongoing sense of direction. It was also clear that the disagreement between members was persisting. Paul and Jim seemed to differ fundamentally, for example, in their approach toward developing nations. This exchange occurred after the group had already spent almost half the time they had before the paper was due:

DIALOGUE 5. Policymakers, almost half way through their available time:

1 Jim: I think a lot of the developing countries--an important factor for them is just that we're listening to their concerns.

2 Andy: Yeah.

3 Jim: Rather than dismissing them.

4 Paul: I think that's neo-paternalism--that's patronizing. Our whole attitude toward a lot of developing countries is patronizing. This idea of listening to them--There's no reason to. Treat them as equals.

5 Jim: Well--that means listening to their concerns. And--

6 Paul: Yeah but it doesn't mean paying lip service to their cockamamie organizations they subscribe to.

7 Jim: It doesn't mean subscribing to what they say, it means hearing it.

8 Paul: Um hum.

9 Andy: Keeping an open forum.

I have already presented the interaction between Jim and Paul when Jim tried to structure the group task. What Jim and Paul are saying above may be read as a disagreement about how people ought to talk to each other, as well as a disagreement about foreign policy. Paul's beliefs about non-patronizing discussion ironically result in behavior that makes Jim feel that he is not being treated with respect. Interpersonal issues appear to have become a point of departure for substantive discussion. At the same time, the intellectual question of what policy to choose became entangled with a personal contest for control in the group.

Although the Policymakers' disagreement was important and persistent, the group as a whole did have consensus on task definition--on the general area they should be arguing about. Their disagreement prevented them from starting

construction work because they could not choose a direction, and could not begin to amass a body of agreed-upon points. But they did elaborate and sharpen their ideas in the crossfire of challenges over content.

The Novices' disagreement occurred at a more basic level in the work hierarchy. They did not disagree simply over what solution to choose. They disagreed on what they should be talking about. This was an issue that came up again and again, and it made it difficult for them to sustain much content discussion. The following dialogues show what this was like.

DIALOGUE 6. Early in the Novices' second meeting; immediately after the client's presentation.

1 Ken: You don't meet affirmative action by just hiring black people!

2 Alexandra: Yeah but I think--they just took one problem--

3 Will (interrupting) Yeah, I think they just took one of them for us to be able to do in two weeks--

4 Ken: Yes, but you don't meet an affirmative action goal of 12% overall by just hiring black people

(Later in the same meeting)

5 Ken: Basically they (client) all do nothin'--that's the thing they share in common.

6 Alexandra: I don't know--I don't know how you can say that! You don't know that!

7 Ken: YES I DO! That's part of the whole problem...

8 Will: I guess I'm thinking that--I mean, we just have to make several assumptions, but I think that he just picked up this as one manageable project for us in two weeks. If we had to look at [other groups] and everybody--I mean in two weeks it would just have been--

DIALOGUE 7. Fifteen minutes into the following meeting.

1 Alexandra: Ken--do you think that what you're focusing on is ... an addendum to the problem of this paper? Because we're being limited in scope.

2 Ken: I think we're limiting ourselves, if that's what we interpret it as.

3 Alexandra: I don't--I think if we were real consultants we'd have to look at the whole problem, but--

4 Ken: One of my major recommendations would be ... [not to] narrowly focus on that.

5 Alexandra: ... but ... for the purposes of this exercise we should focus on issues <u>they</u> raised.

The Novice's polarization about the scope of the task continued through their third meeting. An exchange that closed the argument for a while is illuminating:

DIALOGUE 8.

1 Will: I guess I see that we'd hurt ourselves if we tried to assume things we just have no information about one way or another. We just don't know...

2 Ken: (restates his position)

3 Louanne: Well, why don't we just put that in the recommendations?

4 Ken: That's what I'm saying--that's all...

5 Louanne: Because, see, I think you have a lot of knowledge and information--this is pretty much your area, but I think for this task that I feel more confident just focusing on this area...

The dialogues point to numerous obstacles in the way of this group pulling together to define the task and begin work. At one level, there is the same kind of struggle for control that appeared in the Policymakers group, between one person who had already made some clear choices, and others who did not yet know what to do.

The contested terrain is the group's stance toward the client, and it appears to be related to the racial split in the group. In his statements 5 and 7 (Dialogue 6) Ken all but tells the group that if they just accept the client's presentation of the case, they will become "part of the problem." The white members do not reply to this directly, but say, in effect, "but this doesn't count." They are not real consultants, and this is just a two week class exercise. Not only do the white members appear to feel much less expert than Ken, they may be afraid to argue about the issue he raises. In this group, the question of how much the group can realistically do "in two weeks" is superimposed on the question of whether the group's task should be to go along with the client ("focus on the issues <u>they</u> raised") or to go <u>around</u> him, as with the industrial spying. Within the group, this overlaps with Ken's implied question to the others: "Are you with the racist client, or are you with me?" A direct discussion of these matters would have put group members uncomfortably on the spot.

Group members' racial differences seemed to add impact to their differences in expertise. It is noteworthy that only Louanne, a black person, could grant Ken his expertise and suggest that he put his recommendation in the paper--even though she, too, wanted the discussion to come down to her inexpert level. (See statements 3 and 5, dialogue 8.) In contrast, Alexandra said at the group's feedback session that she felt especially inadequate--being white--to argue with Ken when she disagreed with him. This may have made it too much an all-or-nothing choice for her about letting Ken

influence the group. He wanted to swim in the deep end, and that might have shut her out completely. The result for the group seemed to be that Ken was too intimidating for them to be able to benefit from his knowledge.

Summary of Phase I for the two slower groups. Phase I for each of these two groups was a period of unstructured exploration. Neither group "produced" anything on paper at this time; in fact very few decisions of any kind were made and carried out. We may speculate that the members' vagueness about the task made it a little like a projective test--interpersonal issues colored task discussion quite a bit, at times. The combination of uncertainty about the task and inter-member differences seem to have contributed to polarization in the groups. Each group experienced a running argument, crystallized in opposition to one member's strong statements about what the group ought to be doing. Neither group had, as yet, enough consensus about the task problem to start working together constructing solutions.

The Faster Pair: The Strategic Planners and CF Committee

Phase I for these two groups was much different. While the Novices struggled to define their task, and the Policymakers debated over the basic direction their solution should take, these two groups completed the two steps very quickly. Members were in conspicuous agreement. Early choices about what to do were followed by task work that had structure and direction. There was cumulative progress in building group problem solutions. By their second or third meetings, each had a provisional solution to the task problem. We will look first at the Strategic Planners, then at the CF Committee.

Strategic Planners' Phase I meetings. The Strategic Planners' second meeting was basically an expansion of their first. The group immediately established that no one had done the course readings, though clearly everyone had analyzed the case. The opening 10 minutes were spent talking about the client and setting a plan of work. The group agreed that the client had been straight with them, and on what his central problem was. They also agreed on what the group should provide for him, given their assessment of his problems and abilities, and the limits on the information they had. They then turned their attention away from the client himself and the general analysis of his needs, and began building their solution. An abbreviated excerpt from their meeting shows how they started working:

DIALOGUE 9. Dialogue opens with the first remarks of the meeting.

1 Jack: I have not looked at any of the readings--did you look at all?

(Bert and Rajeev laugh)

2 Rajeev: We are all at the same point.

3 Jack: I wrote--well--I was thinking about it... We have actually two parts of the problem... We could either pick something ... and say "this is the best way to grow, given this stated objective"--or we could do alternatives, different ways to grow, which might be more necessary because I don't know if there's enough information. I was just talking to somebody who's taken

the course before and they said why don't you do it like a prospectus for a consulting study.

4 Bert: That's exactly the way I'd go. (Briefly restates Jack's position)

5 Rajeev: Well, I think we are thinking mostly in the same manner--my idea was... (states the same plan).

(In the next five minutes, each member throws out some of his opinions about the client and his business. They discuss his candor, what skills he may or may not have, his receptivity to certain types of suggestions and his ability to carry them out. They concur that his main weakness is being too caught up in technology to do needed long-term planning.)

6 Rajeev: Are we going to generate topics like this or start working on these topics? What are your preferences?

7 Jack: We've got some more time--Let's see where we are--I think it would be premature to describe alternative goals yet--we could do that Tuesday.

8 Rajeev: If we can generate some of the assumptions now and talk about the alternatives later--it's a two-step thing...

9 Jack: Okay, that's fine. Let's start that.

10 Rajeev: What are the things on which the business depends?

11 Bert: Supply--operations.

12 Jack: The technology is the key.

13 Rajeev: Let's go into more depth on each one of them.

14 Jack: Okay.

Rajeev's statement (6) "Are we going to generate topics like this or start working on these topics?" Is the point where the Strategic Planners shifted from the work of choosing a direction to the work of constructing it. Their outward focus on the client himself (what did he say, what does he think) shifts toward a more inward focus on the "facts" of the case as understood by the group's own members (what do we think about this problem). Statements 10-13 give a capsule of the process the group followed for their second and third meetings. Rajeev seemed to have an ordered set of questions in mind. For the most part, he asked his questions, and Jack and Bert provided answers. Jack would periodically summarize the information.

A few excerpts from the end of the meeting help illustrate the clarity of the group members' sense of what they needed to talk about:

1 Jack: Do we want to talk through this last step or just--

2 Bert: Okay.

(They go into a 10 minute substantive discussion)

3 Jack: Okay. Let me try to put this together. I think we're all saying that... (He puts the meeting's work into a summary statement.)

4 Rajeev: Do we have enough for a first draft?

5 Bert: No, because we haven't talked about (he names a topic) but we've got the skeleton.

By the end of their third meeting, the group had generated an organized picture of the client's business environment, and drawn fairly detailed descriptions of two major growth options. The meetings moved fast, and ended with a sense of closure. For each meeting, members had a sense of what constituted a whole piece of work--i.e., what they would have to do to finish the "last step" for the day. I saw little evidence of interpersonal issues in the discussion, and there was minimal friction among members.

Strategic Planners' Task Understanding. The Strategic Planners appear to have had quite a jump on their work, from the beginning. Their confidence about how to handle the task is high. As the dialogues show, they took about 15 minutes of meeting time to classify the case, identify the client's main problems, and decide on the kind of product they would create. When they turned to start work, they knew how they wanted to do it: "...generate the assumptions now and talk about the alternatives later. It's a two-step thing..." They brought a clear structure of their own--the technique of strategic planning--to the task.

Their Willingness to Work as a Group. Additionally, the three men seemed very willing to work together as a group. The second statement of their meeting was "we are all at the same point." All three brought the same basic case analysis and preferred plan to the meeting. They were "thinking mostly in the same manner." When Rajeev suggested a concrete agenda, the answer was "Okay, let's start that," and they began. In fact, the amount of continued agreement among the three members of the Strategic Planners may have been due to more than pure coincidence. If the Novices and Policymakers seemed almost determined to disagree at times, the Strategic Planners sometimes appeared to be invested in agreeing. When their opinions differed, the pattern would be to identify the area of agreement first, then state the specific disagreement. Here are some examples taken from scattered points in the group's life:

Jack: "...yeah, we gotta identify the areas that affect his business, but we have to be careful not to make it just a business analysis."

Rajeev: "I agree with 88% of what you're saying, and I think we should say that, but I disagree with 12%."

Jack: "What you were saying are issues to be assessed under each option, and what I was saying was four options on growth. We've listed the activities-- let me tell you how I've grouped them."

CF Committee's Phase I meetings. The CF Committee was a small collection of professionals called together at the request of the Centralized Fundraising Organization. Two of the group, Diane and her assistant, Phil, were CF staff. The group leader, Harriet, was a volunteer member of the CF Board. The other three members, Alan, David, and Mike, were from non-CF organizations in the community. The group's presenting task was to help CF design an evaluation procedure that it could apply to its member agencies. Behind this task lay CF's need to re-define its relationship to its agencies, and the dilemma of whether the evaluation would be "for" CF (to help it be more discriminating in allotting funds) or "for" the agencies (to help them use their resources better). Though this group did not have a client and an instructor like the students, it was similarly situated in-between the assigner of the task--the CF Organization--and the external subject/audience of the report, the member agencies.

The members of the CF Committee arrived at the first meeting with a head start on the task, and with prior relationships with each other. They had all communicated with Harriet about the work, and they were already familiar with CF's situation from their own knowledge of the community. Most of them had designed or used evaluations before. They all knew each other as fellow "senior" members of the same network of community organizations. In their opening meeting, the CF Committee made two major decisions. They first decided that the present group would, indeed, go ahead and design the evaluation. They next selected a provisional solution to the dilemma of whom the evaluation should serve:

DIALOGUE 10. Remarks are from the first 10 minutes of the opening meeting.

1 Harriet: I specifically wanted a small committee with no agency reps, because they look at "How's it going to affect me."

(Group members begin discussing their doubts about the wisdom of this decision.)

2 Diane: The level of agency acceptance is not high...

3 Mike: I'm concerned about putting energy into something that might sit on the shelf.

4 Diane: I'd rather we design it in a way that's sensitive to potential acceptance problems. If not, surely it won't be used.

5 Harriet: I think everyone thinks agencies should be evaluated.

6 Diane: Not the agencies.

7 Harriet: Well, this is a fact of life. They're never going to want that...

8 Diane: Our policy reads "agencies will be evaluated." We are entitled to do it...

9 David: I see some reason to go ahead with the technical side as long as we have no illusions about what might happen to it in the future.

10 Diane: ...agencies want it done but are not themselves doing it now.

11 Mike: We do know that [favorable fact about past evaluations]. That's a history we could use to our advantage...

DIALOGUE 11. About 15 minutes into the same (opening) meeting.

1 Alan: It might be very helpful for CF to sit down with the member agencies and help them.

2 Diane: I have to admit that's a real good idea...

3 Mike: I don't disagree--but we do have to know how our three million bucks is being used. We have to justify "Why give to Centralized Fundraising?"

(Alan proposes that the committee design two procedures: one for a 5-yearly appraisal of the agencies by CF, and one for a yearly self-evaluation--not connected to funding--that CF would use to help agencies improve themselves.)

4 Alan: What if the 5-year thing was used to verify their self-evaluation? Self-evaluation helps them help themselves--it's technical assistance--and it also helps you because you're checking the things they're saying about themselves.

The parallels between this group of professionals and the student groups are interesting. The leaderless student groups began by dismissing assignments they had received from their instructors. This group began by questioning its leader's decision to form the committee with no representatives from member agencies. Their starting concern is much more with the equivalent of the client (the member agencies) as they worry about how the project will be received--about "putting energy into something that might si   the shelf." It is as if this committee is saying: "You want us to do something for you. But the people who will make or break the value of this work are the clients--and they're the ones we have to think about first in deciding what to do." Statements 7 through 11 (dialogue 10) show the committee's about-face on the question. Once Diane has made the point that CF is legitimately "entitled to do it," group members seem ready to express the positive side of ambivalent feelings.

The committee's future discussion was "how should we do this," not "should we do it." Dialogue 11 shows the committee's choice of a solution to be constructed. They decided to handle the dilemma by combining both sides. A yearly, non-threatening evaluation is paired with a five-yearly judgmental one. This solution slants fairly steeply toward the member agencies' side of the dilemma, and suggests that the group's stronger concern at their first meeting was with member-agency acceptance of their work.

Once this solution had been proposed, the members worked together to elaborate it. The group spent no time discussing where to begin and how to

work; however, an overview of their entire life cycle shows a clear progression from topic to topic, paralleling a progression through the evaluation process they were describing. The questions they discussed, in order, were: "Should this group do the task? What is the purpose of the evaluation? What form would it take? How would it be administered? How should agencies' compliance be monitored? How will results be processed and used? Now that we have a written report, what will the report commit us to, and how will the audience react?" Items seldom received full treatment out of order. For example, during the first meeting, the group spent considerable time talking about the purpose of the evaluation. When a member wanted "to interject another issue ... What is the role of volunteers in administering this?" The discussion quickly came around again to the purpose:

Alan: "...I wouldn't be worried about the use of volunteers as long as we had a set of specs."

David: "Now--it's the set of specs--we've come full circle."

Alan: "What's the purpose?"

Either the natural order of the task or the members' experience-based sense of order seems to have kept them from skipping around.

The CF Committee's Task Understanding. Like the Strategic Planners, the CF Committee moved into their task very swiftly. Although they did not have a special heuristic such as strategic planning to bring to the task, they did have the next best things. Group members were quite familiar with the subject matter, and their task appeared to have a logical order of its own.

Their Willingness to Work as a Group. There was little sustained disagreement in Phase I of the CF Committee. This is particularly interesting in light of the amount of ambivalence that was evident for most of the individual members. Throughout the group's life, members of the CF Committee changed their minds about many of the matters that were before them. The opening dialogue, for example, shows Diane expressing opposite sentiments about an issue: "agencies don't want this;" "agencies do want it." The pattern of Phase I appeared to be that, once a good reason had been found to settle some point, the group worked to cement their agreement on it. This showed in the group's turn-about in the opening dialogue, and it showed in scattered comments that were made following the group's acceptance of its first problem solution:

Alan: "I'm saying, and I think you're saying..."

Mike: "I don't think you guys are disagreeing."

Alan: "...and I think we agree on that."

David: "...we're all in agreement about that."

There may have been many reasons for this pattern of agreement. Group members appeared to know and trust each other. Certainly it took some trust

for people to be so open about their own ambivalence and doubts. As the leader herself remarked, she purposely selected a committee without agency representatives in order to minimize built-in conflict. Then, too, members had continuing professional relationships to protect, both for their personal reputations and for the mutual help that their organizations sometimes exchanged. In any case, the group members appear to have come to the committee ready to work together.

Summary of Phase I

Two major sets of issues in a model of group life cycles were outlined earlier in this paper: (1) the chronological issues of time, the hierarchy of work activities, and the pace of a group's work; and (2) issues involving the relationships between individual members and the group as a whole, and between the group and its external context. Now that these concepts have been touched on in the exposition of Phase I, we can review them one by one.

Chronological Issues

The importance of time. Two major hypotheses of the model are that (1) groups' lives are divided into distinguishably different segments; and (2) the divisions between segments are determined not simply by the particular activities that the group is doing, but by members' reactions to the passage of time. The first hypothesis implies that there will be consistency within segments of groups' lives. A group's general approach toward the task, and the general tenor of its internal relations will remain the same for a time, then change in spurts from one segment to the next, rather than changing in an even, gradual movement. The second implies that groups will experience changes at similar times in their calendars, even though they are engaged in different activities. A sub-hypothesis of this section is that the approach that group members take at their first meeting--toward the task and toward each other--will be continued through the first phase of their calendar time.[5]

The preceding case material has begun to illustrate these hypotheses by showing the consistency, within each group, of its first two or three meetings. For the Novices, the first encounter foreshadowed subsequent uncertainty about the work, and inter-member disagreement about how to relate to the client and how to define the task. For the Strategic Planners, the first encounter was an accurate preview of agreement among members. Though the meeting was very brief, it showed the team's definition of the task and choice of direction for the next several meetings.

It will be the task of the next section of the paper to show teams at different points in their work undergoing important transitions at the same time in their calendars.

---

[5] This initial "preview" segment may actually be a first unit of time, occurring at the beginning of the first meeting for some groups.

The hierarchy of work activities. The major hypotheses here are that (1) teams generally follow a hierarchy of work activities (task definition, choice of direction, construction work, evaluation), and (2) the process is logical in that teams will not reach closure on an activity as long as the logically "preceding" activity remains seriously unresolved. Case materials were presented to show specific examples of these work activities and the sequence in which they occurred. Two teams were shown to be stuck at different levels of the hierarchy. The Novices, who disagreed about task definition, did not do much exploration of possible directions, since they could not settle on what they should be talking about in the first place. The Policymakers did agree on what they should be talking about (task definition) and they covered a lot of the pros and cons of possible task solutions. However, they did not amass any agreements about construction work while they were in conflict about what direction to choose. The two faster teams were shown defining the task (Strategic Planners) choosing directions, and doing construction work. The next section of the paper will show each team progressing into the next level of its own work hierarchy and will describe the activity of evaluation for the two faster teams.

Pace. The discussion of pace deals with how quickly a group will get through its work. What determines how much of its time a group is likely to spend on defining the task and choosing a direction, before beginning construction work? The question is approached by examining the differences between two groups who moved rapidly and two groups who moved more slowly. Observation suggested two related determinants of teams' pace: members' readiness to work on the task, and members' readiness to work with each other as a team. Specific hypotheses about pace are:

1a. The more structured a task appears to a group, the faster the group will move ahead.

1b. Perceived task structure arises from the inherent order and complexity of the task and/or from the clarity and homogeneity of the cognitive maps that the group members bring to it (whether the members' perceptions are "correct" or not).

2a. The more group members are inclined to agree with each other, the faster the group will move ahead.

2b. ·· less structured the task, the less likely members will be to agree with each other. Phase I analyses looked at the importance of these factors in each team's work, and compared the slow and fast teams on the two dimensions.

1: Readiness to Work on the Task. The Novices and Policymakers began less ready to work on the task than the Strategic Planners and the CF Committee. The Novices directly described themselves as feeling "disorganized" about "what to look for" on the task. The Novices and Policymakers both made unsuccessful attempts to structure their work. For these two teams, the task appeared ambiguous, and the members were uncertain about how to proceed. Meetings were rambling; little short- or long-term planning was done.

In contrast, the other two teams did start out with fairly substantial maps of what they were doing. The Strategic Planners defined their client's problem, picked a specific method of work, and began using it to build a solution right away. They were able to plan future work schedules. This team had a structure of its own (strategic planning) with which to impose order on the task. The CF Committee accomplished their work via an orderly progression through the steps of their task. In their case, the task itself seemed to have considerable structure in that the familiar (to the team) steps of an evaluation program provided an organizing framework for the design task.

2: Readiness to Work as a Team. The concept of task readiness, applied to an individual, would refer to a knowledge of what to do. An individul who knows what to do can work faster than an individual who has to figure out what to do. For a team, individual members knowing what to do is not enough--there must also be some agreement about what to do. For people to do something as a group, the members must agree at least enough to reach a necessary minimum of participation, otherwise there is no group product.

The case material suggested a connection between task readiness and readiness to work as a team. With a task that is perceived as ambiguous, the work does not dictate what to do. There is need for negotiation, and interpersonal control may become important. In addition, task ambiguity, like a Rorschach inkblot, provides room for personal agendas to enter the discussion. There were major disagreements in each of the two slower groups. These disagreements were not simple matters of people coming in with well-defined and opposing views. Rather in each team, one member with a definite plan became a side of a polarized argument with others who were still unsure about their preferences. Covert interpersonal issues and struggles for control appeared to add fuel to the arguments in each team. The deadlocks prevented each team from settling on the premises for their work and going forward. In the next section, we will see how these teams concluded their Phase I debates and moved ahead.

For the fast teams, agreement was conspicuous. The Strategic Planners immediately converged on a definition of the task and a method for their analysis. When an agenda was proposed, everyone consented to participate, and they began. The CF Committee's efforts to cement agreements were described. Members of this team were explicitly selected to minimize conflict; additionally, their past acquaintance and professional interdependence may have made them reluctant to get into any serious disagreements. The next section will show these teams reassessing their early, unanimous decisions.

Intragroup and Intergroup Relationships

Individual members' relations to the group. Transcripts showed that first meetings were key times for negotiations about what individuals needed or wanted from the group, and what they expected to put in. In the Novices team, one member expressed her feeling that the project might require more time and effort than she wanted to spend, and another member immediately countered with lower time estimates and higher standards. For the Strategic Planners, one member explained his time constraints, and the team responded with a plan for a group schedule that would include him. At this point in the

teams' lives, the focus was on setting conditions of group membership, i.e.,
what do the individuals have to do in order to be members of this group, and
what does the group have to do in order for these individuals to participate?
Later on, as the discussion of task completion will show, attention shifted
toward evaluation of how well these conditions were met, and the theme of
equity.

Relations between the group and external agents. All the groups in the
study were situated between two kinds of external agents: the agent who
assigned the task (course instructors; the CF organization), and the clients,
who were the subjects and recipients of the groups' products. All started out
by giving a small amount of negative attention to their task assigners, and a
large amount of attention to their clients. The Novices and the Strategic
Planners, for example, mentioned parts of their instructors' assignments, and
explicitly decided not to do them. The Policymakers ignored one member's
repeated suggestion to use the instructor's outline, and the CF Committee
began by questioning whether they should do the task at all. In contrast, all
groups spent time discussing their clients' characteristics, expressing what
they thought of the clients and what they thought the clients would want or
accept from the groups. Then as they got further into Phase I, groups turned
their attention inward, away from external agents. The slower groups became
involved in their arguments with each other. The faster groups became
involved in members' ideas about the task as they constructed their first
solutions.

The case materials so far suggest three observations and one general
hypothesis about groups' attention to external agents. The observations are
that (1) attention to external agents is a first-meeting concern, a natural
part of a group's start-up process; (2) groups do not treat all external
agents the same, and may react differently to different outsiders within the
same segment of their lives; and (3) the amount of attention groups give to
external agents shifts at predictable times--starting high, then dropping off
as teams move into Phase I. The hypothesis that falls out from these
observations is that groups' attention to external agents is determined by the
interaction of the group's state of development with the demands that
externals make of the group; it is not a straightforward outcome of the
directives that externals give.

Observation 1: Attention to externals as a first-meeting concern.

We are used to thinking of the first stage of group development as a time
when group members establish their own and each others' identities within the
team. "Who is in this group?" is a key question at formation time. (Schutz,
1958). And in fact, discussion of external agents may have helped the members
identify each other and build the team. Particularly in relation to clients,
group members were in foreign territory. Their mutual dependence and their
similarity to each other as representatives of the home organization would be
highlighted in discussion of the client. Agreement about the client, whether
positive or negative, would indicate some important common ground and help
pull the group together. The Novices' disagreements about the client
certainly reflected some very basic splits in the group. The observed groups
had to do more than establish who was in the group, however. They also had to

begin to identify "who is this group in relation to the outside world?" The raison d'etre for these teams was the performance of work that was about people outside the team, and to be used and evaluated by people outside the team--people who could readily identify the team as responsible for that work. For groups whose work is inextricably connected with outsiders in that way, defining the relationships between the group and relevant outsiders is an inevitable part of defining and doing the task. Even if members don't do this explicitly, it will be implicit in the substance of the work.[6] In sum, group members' discussion of outsiders at the beginning of their time together appears not solely to knit the individuals into a group, but to start knitting the group into its context.[7]

Observation 2: Groups do not treat all external agents the same.

In this study, groups varied their attention to external agents, both in substance and duration. Their attention to task assigners might be described as counter- dependent and brief. They devoted only a few statements to task assigners, enough quickly to define their working relations: "we ignore what they want and get to work in our own way." Pointing out that the groups were counter- dependent does not explain why they spent so little time on task assigners, though. The brevity of their attention might be understood in terms of the task-assigners' non-usefulness at this stage of groups' work and development. Their requirements may not have been usable at the beginning, when there was no concrete finished work to which to apply requirements. Task assigners themselves may have been too close and familiar to group members for a discussion of their characteristics to help members with the start-up process of defining the group.

Group's attention to clients was not uniformly negative or positive, and it lasted longer. The content of group's attention to clients suggests that dependence/counterdependence is not the only dimension on which groups respond to outsiders who make demands on them. The clients appeared to be important in groups' start-up activities, both in the definition of the group and its relations to the outside, as mentioned above, and in the definition of their tasks.

For groups dealing with clients, or for groups whose tasks include some kind of policy formulation, it is important to consider that the task itself may involve the definition or maintenance of relationships between groups. The potential connection between task definition and relationship definition is clearest in the example of the CF Committee. Their assignment was to design an evaluation procedure, but by doing this, they were unavoidably re-defining their relationship to their member agencies--in a very concrete, observable way. Their dialogues indicate that a good part of their struggle

---

[6] For example, significant "unintended consequences" may result if a group fails to consider its relationships with important outside stakeholders as it formulates plans.

[7] This is anticipated, but not presented as a developmental process, in Alderfer's definition of a group as being perceived as a group both by members and nonmembers. (Alderfer, 1977)

with the evaluation design was a struggle to decide how they wanted to design that relationship. The Novices' disagreement about the client shows the connection in another way. As long as they could not agree on whether they should be working for the client or around him, they could not get very far in defining their task. (These examples also highlight the implications of the mix of people within the group for the group's ability to define a stance toward any given outsider. The Novices members had very different feelings about a critical outsider, and found it difficult to define a group position in that relationship. The CF group, though undecided about how to relate to member agencies, shared a common set of perceptions about the problems and goals of CF's ties to member agencies.)

Observation 3: The amount of attention groups give to external agents shifts at predictable times.

Groups began with some assessment of important external agents and the group stance toward them; then members' attention appeared to shift to the action inside the groups. As the case histories unfold, a fuller picture of alternating attention toward and away from external agents will emerge.

Hypothesis: The attention given externals is multiply determined.

We have looked at how groups' attention to external agents differed and changed over time, and how it did or did not fit with the start-up activities of forming the group, situating the group into its context, and defining its task. It is unlikely that it would be useful to try to predict all the relationships a work group might have with external agents--this would depend on the group, the context, and the task. But a general hypothesis might be drawn from the observations above: Groups' attention to external agents is determined by the interaction of the group's state of development with the demands that externals present to the group. This hypothesis will be explored further in the next section of the paper on transition, when we will see the strong entrance of the task assigners into the groups.

TRANSITION

All four groups experienced a marked transition about half way through the time they had available for meetings. In general, each group hit a low point, and then started up again having made some major shifts in direction. All the groups appear to have been influenced in their transitions by the task assigner.

The specific characteristics of these changes in direction were different for the two pairs of groups. For the fast-paced groups, Phase I had been characterized by quick decisions and unhesitating construction of the chosen problem-solutions. For these groups, the transition took the form of questioning the adequacy of what had been created, and making major revisions. The slower groups had spent Phase I in unstructured exploration and argument. In their cases, transitions were periods of choice-making, structuring, and pulling together.

First the slower, then the faster teams' transitions will be described
and analyzed. The effects of time, the changes in interpersonal conflicts,
and the groups' increased experience with their tasks will be discussed, and
the section will close with a general summary of transitions.

The Slower Groups

The Novices

The Novices exhibited a transitional change at their fourth meeting.
This meeting was set apart from others. It was their first evening meeting,
and the first one to start on time. People had done some homework and read
materials from the client. They seemed to have a much better sense of what
they were doing. Very significantly, Ken had just been transferred to another
group by the course instructors. (The group's explanation for this was that
the other group needed his expertise more since it was doing an oral
presentation for the client, while the Novices were only writing a paper.)
Excerpts show how this meeting felt different for the group members.

DIALOGUE 12. The opening dialogue of the Sunday evening meeting.

1 Alexandra: This is due next Monday, right?

2 Grace: Right. Time to roll.

3 Alexandra: Want to set a time limit?

(Members agree on a time limit, go over some materials from the client, and
decide to structure their discussion around a list of issues to be covered in
the paper. They decide to discuss each issue in turn.) Then, later in the
meeting:

4 Grace: So we're ready on Section II, number I, "recruiting."

5 Alexandra: What time is it?

6 Grace: 8:00

7 Will: Not bad! We spent one hour on one topic, and an hour on another!

8 Will and Grace: Yay!

9 Will: We're moving' along here, too--I feel a lot better about this at this
   meeting than I have, you know--

10 Alexandra: Yeah--

11 Will: I think we are getting a lot done, too.

(Alexandra agrees)

12 Grace: Well I think we're also making--decisions to be task oriented, and--take the problem at its face value...

13 Alexandra: Instead of...

14 Grace: Part of our trade-off with losing Ken is--the social consciousness--

15 Alexandra: Um hum--

16 Louanne: He comes in with a lot of experience, though, I mean he--

17 Alexandra: Too much, I think, for us--

(Louanne defends some of the points that Ken had made.)

19 Grace: That's--I think, his good point that he left us with was ... and that should be a very strong point.

20 Will: I think it should be too.

Not only does the group pick up the pace of their work, the members themselves express a sense of relief and "feeling better about it." Statements 12-20 show the group's reaction to losing Ken. This clearly made a big difference to the group, and they tie their new ability to "be task oriented and take the problem at its face value" directly to his absence. When Alexandra and Louanne, now the only black person in the group, show signs of arguing about Ken (statements 16-18), Grace and Will quickly move in to confirm Ken's value. The group did not allow the debate to come up again.

The Policymakers

It is not possible to know what would have happened to the Novices if Ken had stayed. It is important, though, that the Policymakers went through a similar transition without losing one of their key disputants. In their case, the steps leading to the change were more visible, and possibly more painful.

The transition began on the third of the seven workdays the group had for the project. the group had decided to select a counter policy to the one that Paul had wanted, and to try to construct it. After about 15 minutes of discussion, this trial balloon sank:

DIALOGUE 13.

1 Jim (explaining to Alice, who has just come in late): I guess we've sorta felt we should not go for the minimalist strategy of yesterday, and so we're exploring, if it's not minimalist, what should it be.

(Pause)

2 Alice: Tempered minimalism.

(Long pause)

3 Paul: I'll do whatever y'all wanna do.

4 Jim: Go sailing.

5 Paul: I'm hungry.

(Long pause)

6 Andy: Well--one step up from minimalist would be to invite suggestions on what policy the U.S. should adopt.

7 Paul: [Expert panelist] is gonna tear that up. ...I mean it would be a good position if I was doing it, but not in terms of giving a presentation. Saying, "We don't know what to do, so we think you ought to ask the people that know what to do, what to do."

When the group decided that this alternative would not work, Andy came up with a new idea, a policy that represented Paul's basic plan with a new rationale for using it. The next day, they had an hour or so to meet, and then they were scheduled to rehearse their presentation for the instructors. Though they had agreed to go with the new policy suggestion, there was little enthusiasm for it. As the meeting began, the group was at a very low point:

DIALOGUE 14.

1 Andy: How do you feel about the stance after sleeping on it? I feel a little bit more objective about it but--still pretty good.

2 Paul: I don't care. Whatever suits you--

3 Andy: I've heard that before.

4 Paul: I don't know--I'm about all positioned out.

5 Andy: Okay, well--

6 Jim: I guess my reaction to the position is that it's kinda Spartan... (He moves into a substantive discussion of the problems with the position; the focus is on improving the current one, not suggesting a different one.)

Later in the meeting--40 minutes before the group is due to rehearse their presentation for the instructors:

7 Paul: ...what else do we have to do?

8 Jim: We'll have to talk a little bit about what the policy is that we're proposing.

9 Andy: Yeah. First maybe what the goals are--that could be summed up very quickly along the lines of (he outlines goals) ...and that we should provide some sort of assistance and encouragement to our multinational corporations--to be able to use this industry to their advantage as well.

10 Jim: (surprised) Assist the multinationals? In what sense?

11 Paul: (also surprised) Aren't they the Chryslers of the [case] industry?
My introduction would argue that they might be...

12 Andy: Well--

13 Jim:; We've got a goal of maintaining U.S. leadership in [case industry].
Um--

14 Andy: That's fairly well understood, I would think--

15 Jim: Okay...[but] should the U.S. be number one? ... Is it really our
goal to do what it takes to be the leader?

16 Andy: That's a pretty strong goal, I think--

17 Jim: That's what I mean. Is that our--

18 Andy: Well I think that's--that's a fairly high priority. Why--what would
be the argument for relinquishing that?

(Substantive discussion continues up until the minute before the group is to
be in rehearsal.)

In this meeting, which occurred on the Friday before the Monday their
paper was due, this group appeared to be very far from having a presentation
ready. Statements 9-18 reveal that they had carried out four days of meetings
to discuss policy without explicitly discussing the goals. They had assumed
agreements and disagreements where they did not necessarily exist. The key
thing about the meeting is that it shows the group beginning to pick up. Once
they started putting their ideas into a structure to get ready for their
rehearsal, their ideas began to get clearer. They began to discover that Jim
and Paul were on the same side of some important fences. Simultaneously,
Andy's presentation of some new ideas allowed Jim and Paul to unite against
someone else (statements 10 and 11, dialogue 14). This probably helped cool
down the conflict.

At the group's rehearsal, the instructors encouraged them to go with
their "minimalist" policy--the one Paul had wanted all along. This seemed to
catalyze their commitment. They left the rehearsal with a sigh of relief, in
good spirits.

Their next meeting began Phase II, with the construction of their
product. It was very different from all previous meetings. Jim came having
prepared an outline for the presentation. As with the Novices, they had their
first structured meeting. Thus organized, they were able very quickly to
shape up the material they had spent the last week discussing. The group used
the blackboard for the first time--and in about an hour and a half, they had
put up a fairly detailed sketch of their paper. The tone of this meeting,
too, differed markedly from previous ones. There were many more statements
like "I think we're all saying the same thing" and "Okay! Got the idea!"

Analysis of Transitional Changes for ___ slower Groups

What happened to push the slower groups around this particular corner? The Novices attributed much of their new-found efficiency to the fact that Ken was gone. His leaving clearly affected their readiness to work together as a group. To them, a significant source of conflict was absent, and this freed them to move ahead. The debate around Ken was undoubtedly highly important to the Novices, but there are signs that his leaving was not the sole catalyst of the change. Alexandra and Louanne's exchange about Ken (statements 16-18, dialogue 12) suggests that the seeds, at least, of continued conflict were still present, but the other two group members would have none of it. There is the chance that one or the other side--Alexandra or Ken--might have withdrawn emotionally if not physically at this point.

Other parts of the dialogue imply the importance of the simple accrual of time and experience on the problem. The longer they had worked together, the more impatient they became, and the closer their deadline loomed. Grace and Alexandra opened the meeting by remarking that the paper was "due Monday," that it was "time to roll." They now wanted "to set a time limit." Meanwhile, their understanding of the task had grown. They had developed their ideas, and they were able to create a structure to organize them. The contrast between this meeting and earlier ones when the group didn't even know "what to look for" is fairly strong.

The Policymakers provide an example of a group moving from polarization to unified commitment, with its membership intact. In their case, a clearer understanding of the task seemed to go hand in hand with a reprieve in the interpersonal conflict. The discussion of the 'opposite pole' of the argument over policy finally gave Jim the chance to hold the floor of the group. When his argument failed on its own merits, the intellectual wind seemed to depart the sails of the group's debate. This in itself might have merely left the group demoralized (as they seemed to be at the beginning of their pre-rehearsal meeting). However, the group's course requirements intervened. They had to give a rehearsal. This forced more structure into their discussion, and helped them clarify some of their disagreements. With this clarification and the instructors' support, the previous combatants found they had more in common than they had realized, and they gained enough commitment to choose a problem solution. Once they finally derived a structure for the problem, they were able to put the jumble of their ideas into a shape that made sense.

These two groups experienced fairly sharp transitions from periods of unstructured, polarized exploration, to low points, to periods of organized, unified production work. Ideas that had been tossed around in the first few meetings suddenly fell into place as the transitions were launched. For the other two groups, the transitions served a different purpose. For the Strategic Planners and the CF Committee, the transitions involved reassessment of the problem solutions they had created during Phase I.

The Faster Groups

The Strategic Planners

The Strategic Planners went through the transition process relatively quickly, at their third meeting, following a class lecture. The meeting started about 20 minutes late, in a state of uncharacteristic disarray. First Jack and Rajeev couldn't find Bert, then Rajeev left to get lunch; Bert arrived and couldn't find the others. The group couldn't find a room and finally ended up talking in a busy hallway lounge, where there were many interruptions. Jack commented: "It's like a three-ring circus."

The group spent a major portion of this meeting re-evaluating the work they had already done, as seen in the following exchanges.

DIALOGUE 15.

1 Rajeev: I think what he said today in class--I have already lots of criticism on our outline ... What we've done now is okay, but we need a lot more emphasis on organization design than what we--I've been doing up to now.

2 Jack: I think you're right. We've already been talking about [X]. We should be talking more about [Y]. I think we were getting hung up drawing the chart.

3 Rajeev: We've done it--and it's super--but we need to do other things too.

(Bert agrees)

(Several interruptions occur as passers-by speak to Jack.)

4 Jack: After hearing today's discussion--we need to say [X] more directly ... And we want to say more explicitly that (explains idea).

5 Rajeev: Can we look at the organizational charts that you (Bert) did? Or should we be a little bit more organized and look at the outline. Especially if we meet only briefly tomorrow, we should know where we're going.

6 Jack: Yeah. That's an understatement.

7 Rajeev: I think this is a bad introduction.

8 Jack: I think what we want to do in the introduction is hit 'em--

9 Rajeev: We need to define his problem in the first paragraph-- and I don't think this is a definition of his problem...

(Discussion about what should go into their paper.)

10 Jack: That'll keep the paper clearer. One of the things we've had
   problems with in our discussion is getting sidetracked.

(The group goes quickly through the outline it had prepared, noting changes
and additions they want to make. Bert leaves the meeting.)

11 Rajeev: The problem is, we're very short on time.

12 Jack: We're having trouble meeting, but we're gonna put in enough time...
   We're so compressed here--you can't get the perfect answer. I'm not
   willing to spend more than X amount. What's frustrating is, if you spend
   the time, you can do it.

13 Rajeev: The problem is, we have not talked about the core... I think next
   time we should talk a little more substance. I think you'll agree that
   we've been talking format 60%.

   This meeting was set off in several ways from the rest of the Strategic
Planners' time together. Their first two real meetings had taken place in
closed rooms, and had consisted of orderly, rapid progress through a series of
questions. Here, there was a late, raggedy beginning and the group was seated
in a hallway with no protection from outside interruptions. Much more than
before, the group allowed the instructor in to influence their ideas. They
had stopped barrelling along on the first task, and were very obviously
pausing to evaluate what they had done. The process started them off on
another turn through the work activities, as they defined the flaws in their
existing product, and chose new additions and corrections to be made--only
this time, their planning was very specifically attuned to the comparison
between the instructor's requirements and their actual work to date.

   The sense of time pressure appears in statements 12 and 13. Having seen
how fast and how well they were working, they were in a position now to think
more concretely about what they would be able to accomplish, and to negotiate
more concretely about how much effort they wanted to put into the remaining
time. In all these ways, the Strategic Planners' third meeting was a break--a
break in the group's boundaries, and a break in their work.

   The following meeting, the group began Phase II. They switched to a new
task. While the first two meetings were used to construct possible growth
options, the group now began to design the organization that would be
necessary to realize those options. The group had originally rejected the
instructors' definition of the case as a problem in organizational design.
Their transitional meeting represented their decision to, in fact, do the
design. The shift in task was accompanied by a shift in leadership, as Jack
took over the "steering position" from Rajeev.

The CF Committee

   The CF Committee experienced a transition that was similar to the
Strategic Planners'. At their first meeting, they had focused on the problems
of member agencies' willingness to be evaluated. They had constructed a
solution based on the premise that CF would use a yearly evaluation to help

the members help themselves--it would have nothing to do with allocations. This was to be paired with a money-tied, 5-yearly evaluation, and the two parts would legitimize each other. The group had worked to cement their agreement on this plan. At their second meeting, the pace of their work on this solution began to slow down. At one point, 16 different topics were raised in succession; none were discussed. As they moved further into the design of the evaluation, the questions that group members asked, and the slowed progress of the meeting showed that the central dilemma: "Is this evaluation for us or for the members?" had not been fully resolved by the provisional solution. The group experienced a real change in direction at their next meeting, the third out of four in total.

As with the other groups, the CF Committee's transitional meeting was set apart. It took place at a different time, and in a different room than the other meetings. Alan, who had proposed the first problem-solution, was absent. The opening dialogue of the meeting shows the members feeling overworked--and apparently anxious to get something done.

DIALOGUE 16. CF Committee's third meeting out of four.

1 Diane, Phil, Harriet, and Mike have arrived--they talk about this being a bad day for a meeting.

2 Harriet: I worked 6 days instead of 4 last week...

3 Diane: I wish I could work 6, not 7...

(Talk about time management and being too busy.)

(David arrives and apologizes for being late (10 minutes). The group has already begun going over the minutes.)

4 Harriet: Any problems with the minutes?

5 Mike: They're perfect!

(Two comments on the minutes.)

6 Harriet: If we could get the self-evaluation out of the way, I'd like to talk about the external evaluation.

7 Diane: We also need to talk about standards. We brought that up previously.

8 Mike: Also, as I recall, some discussion is needed on standards we'd use or that an agency would use for their own use... The question was, did we use it as a bat or--

9 Harriet: Let's get through the self evaluation first, then the external. Does anyone have any problem with the first point on the evaluation draft? Okay, how 'bout number 2?

(Discussion of the draft of the evaluation that Diane and Phil have written.)

At the previous meeting, members had spent some time going over the minutes. Here, the minutes were approved in about 15 seconds. Members came with very specific issues (statements 6, 7, 8) and were immediately ready to work. Though the meeting started off at a brisk pace, the group encountered more and more problems with their first solution. The key questions arose out of Central Fundraising's needs and resources:

Harriet: "I'd almost say--the first year, okay, let'em only be asked to answer the first five questions. Let's be realistic--we don't have the staff time to sit down with each agency every year."

Diane: "What are we accomplishing then? ... It also forces us to answer the question "isn't this about allocations?" Hell if it isn't! We need to know whether or not they're doing good business. And all this is an attempt to be more rational. This is part of allocations. Otherwise, I say, 'don't bother.'"

Harriet: "I think Diane's right. You can't divorce this from allocations."

With this expression of strong doubts about the feasibility of carrying out the yearly, non-threatening, consultative evaluations, the group's first problem solution began to break down. The following excerpts show the first solution being dismantled into two alternatives, and the basis of CF's legitimacy to evaluate being reconsidered.

David: "I see these as two very different approaches--that you--we have to make some decision about." (He outlines two alternative evaluation designs.) "...the question is, which does CF need?"

David (to Diane): "It sounds like you feel CF is less legitimate asking for agencies to help themselves with a self-evaluation, and more legitimate asking for something they'd send in to CF in the allocation process. Because the money CF allocates is its basis of legitimacy in making requests of agencies."

Diane: "Yes. Something that we'd have a use for... If there's not a group to receive it here for a purpose, I question our right to request it."

While Diane and David worked to take apart the old solution, Harriet and Mike used their suggestions to put together a new one. They would keep the two-part evaluation process, but the yearly evaluations would be presented straightforwardly as a preview of CF's allocations criteria. The following exchange shows the group agreeing on this second solution, and moving along to other work:

DIALOGUE 17.

1 David: This is not a docile membership group. These are...equal members, not recipients. They'll tell you to take a flying leap.

2 Diane: Exactly. And they might be justified telling us to take a leap. If what we want is for them to make some effort to critique their own performance, though, that seems okay. It's how we do it that makes the difference.

3 Harriet: If you tell them they <u>will</u> be evaluated every five years, and
   "these are the kind of questions you'll be asked, so--get your baloney
   swinging--"

(Everyone laughs.)

(David asks Diane a question about her staff resources to carry out the new
idea; she responds that it would be manageable.)

4 Harriet: Okay. Let's move on, otherwise we're gonna get behind.

     The CF Committee's transition suggests an interesting progression in
their attention. When they began, their primary concern was with their
"outside" audience, the member agencies. Here, they are ready to say that
they will do the evaluation even if the members tell them to "take a flying
leap." The very first discussion the committee had was about CF's legitimacy
to do something that the member agencies would not like. The first solution
offered a way to have member agency acceptance <u>and</u> hard-nosed evaluation
without making CF or their own group into villains. It is easy to see why the
committee would want to make this work. Why, then, the transition?

     The group's "good guy" solution had been generated at the first meeting,
when the design was still just an idea. At the second meeting, they got
further and further into concrete issues--e.g. writing an instrument,
discussing how to administer it and monitor agency compliance-- and they ran
into more and more problems. The threatening financial purpose of the
evaluations could not be denied. So, in terms of task understanding, the more
concrete experience they had trying to work with the design, the clearer its
flaws became.

     In terms of the dynamics within the group, Alan's absence may have been
important. The first solution had been his idea, and he had taken some
leadership in constructing the design. The difficulties of the second meeting
may or may not have influenced him to stay away from the third. In any event,
the group (including Alan) might have found it easier to dismantle "Alan's"
plan in his absence.

     A prominent feature of the CF Committee's transition is that their
concerns turned from the needs of the member agencies to the needs of CF, the
organization who had assigned the task. It was not until this point that they
began to consider CF's requirements, and CF's resources to pull off their
plan. At the feedback session for this group, Diane said that she'd
experienced some strong pressure from her staff between the second and third
meetings to do something about their proliferating work load.

     In the light of her own unit's resources, then, the idea of helping each
member agency evaluate itself yearly became much less possible. Diane's staff
may have been aware that she was working on a project that would affect them,
and they may have felt increasingly urgent about making their needs known.
Alternatively, they may have been sending consistent messages all along. In
either case, the committee did not seriously consider internal audience

requirements until they had built some concrete work to measure against, and reached their half-way mark.

A final element of the CF Committee's transition appears to be time pressure. The opening comments of the third meeting show members expressing frustration, fatigue, and a need to make significant progress. This, and Diane's impatient question "What are we accomplishing then?" suggest the group's need to stop trying to coax the attractive first solution into line if it was not going to yield real results. They sealed their agreement to change the design, and get back to work again with Harriet's comment "Okay, let's move on, otherwise we're gonna get behind."

Summary of Transition

All four groups experienced a distinct break about mid-way between the initiation of their tasks and their deadlines. Each had a meeting that was set apart from previous meetings by the absence of a group member and/or by changes in the usual place and time of meeting. The groups all reached a point where Phase I work seemed to grind to a halt, followed by a change of direction and a fresh start. Although the groups were differentially far along in their task work, they all used their transitions to move to their own next levels in the work hierarchy.

Four factors have been discussed as important in group transitions: time pressure, task understanding, internal group dynamics, and external influence on the group.

Time pressure. Members' first comments about time pressure appeared at transition meetings. Dialogues showed group members expressing frustration with past progress, talking about the amount of time left and the need to make progress "now." Both the amount of time already spent and the approach of the deadline appear to be behind these feelings of frustration and urgency. The half-way mark is envisioned not as a magic charm, but as a powerful natural point of reference--particularly for teams with few other interim markers. Either consciously or unconsciously, half-way is a time when members know they have accomplished a specific amount of work in a specific amount of time. They have the same amount of time left, and can readily estimate their progress. It is proposed, then, that the members' experience of time acted as a catalyst to push them ahead.[8]

Task understanding. Dialogues from the two slower groups, the Novices and Policymakers, show the effect of accrued experience on members' facility with the work. The Novices progressed from the first meeting, when they said they didn't know what to look for, to the fourth meeting, where they were able to construct a definite work outline and move through it to their own

---

[8] It is not suggested that the mere pressure of time will make a group achieve successful changes, just that there will be predictable windows when the group is most primed to attempt change. Furthermore, groups with multiple tasks, or experienced groups who know the schedule of their tasks well, might have more transitions than the half-way point.

satisfaction. The Policymakers progressed from directionless debate about what policy to choose, to a much clearer sorting-out of a single policy. For both the slower groups, task experience and the fact that they made some choices about what to do helped them put structure into their work. The two faster groups' transitions also depended heavily on task experience. Both the Strategic Planners and the CF Committee had begun with considerable expressed confidence in the ideas for their initial problem solutions. Shortcomings in these ideas became visible to the two groups only after they had done some actual construction work. From the vantage point of transition, the continuity of Phase I task work is somewhat similar to the continuity of night. It is continuously dark between midnight and five a.m., but that doesn't mean the world is not turning. The Phase I experience that groups gradually accumulated on their tasks provided the necessary raw material for the major changes accomplished at transition.

Internal group dynamics. Time pressure also appears to have had a catalytic effect on the teams' interpersonal dynamics, and on members' willingness to work together. For the Novices and Policymakers, persistent interpersonal conflicts and disagreements prevented the teams from making choices and moving ahead with the task. At transition time, the Novices lost a key combatant, and the Policymakers worked out an interpersonal "truce" between opposing parties. For the Novices, the end of argument was accompanied by the team's feeling that they were finally making real progress on the task. For the Policymakers, progress on the task--getting the debate clarified--seemed to ameliorate the interpersonal antagonism. In both cases, then, the drop in conflict appeared to go hand in hand with task progress.

The faster groups had worked in close agreement during Phase I. Nevertheless, the example of the CF Committee suggests that interpersonal dynamics were important for their transition, also. The absence of a central member may have made it easier for that group to change direction without jeopardizing the harmony within the group.

External influence on the group. The assigner of the task had a hand in every group's transition. For the two slower groups, this hand was quite strong. The instructors stepped in and took Ken out of the Novices' group at this time; the instructors required a rehearsal from the Policymakers, and encouraged them to choose a particular problem solution. In these two cases, outside intervention was instrumental in the groups' making choices and moving into construction work. For the two faster groups, it is less clear who initiated the contact. For the Strategic Planners, the comparison of the concrete work they had completed with a lecture from the instructor led the group to "see" what requirements they had yet to fulfill. For the CF Committee, Diane's interaction with her CF staff led her to come to the group with serious questions about the capacity of their plan to meet CF's requirements and resources. In both these cases, the group's interaction with the task-assigner led to significant re-evaluation of the Phase I product.

This section of the case provides another example of the interaction between groups' development and the demands of external agents. There are at least three possible facets of the role that teams' task-assigners played in their transitions. First, the fast teams (and to some extent, the

Policymakers) were far enough along at their tasks to have something concrete to evaluate. At this level of the work hierarchy--evaluation--the task assigners' requirements were pertinent, and were used. Secondly, the teams had played out their first bursts of energy, but needed to keep going. Task assigners provided a source of direction about what to do next. It was fresh--task assigners, unlike clients, had been ignored up to now. And it was external--which may have helped extricate the groups from internal conflicts about what choices to make. Finally, task assigners may have heard their own internal alarm clocks go off at the teams' half-way marks. Certainly the interventions from two of the instructors were more forceful than their initial requests of the teams.

In this sample, the clients had not presented the teams with requirements, and had not arranged to monitor teams' work in progress. It would be interesting to see what happened in teams where outside stakeholders behaved differently.

PHASE II

Phase II was very similar for all the groups--a period of orderly construction work that occurred after transitional changes had been made, and before completion work was begun. The Strategic Planners provide a good example of the distinctions between Phase I, transition, and Phase II. During Phase I, Rajeev had led the group through a structured series of strategic planning questions. As the group responded to Rajeev's questions, they built up their first problem solution. During their transition meeting, the group critiqued their Phase ⁣ work, and planned changes. After the transition, the group followed their same basic process of orderly questions and responses, with two important changes: Jack took over group leadership, and the content of the question-response pattern switched from "future business goals" to "organizational design." In the slower groups, too, Phase II was a time of organized, unconflicted construction--as exemplified by the Policymakers' progression from disorderly debate (Phase I) to unified commitment (Transition) to the structured and productive work meeting described in the previous section (Phase II).

Phase II appeared to be a relatively pleasant--if short--time in groups' lives. People seemed to feel ⁣on the right track" after the reassessments made during transitions. The members of the slower groups, especially, seemed relieved--more confident that they knew what they were doing. This period of productivity looks something like the "performing" stage noted by Tuckman (1965) in his review of group development theories, with an important exception. Tuckman frames "performing" as successor to and product of a period of intra-group conflict and conflict resolution. That would be an accurate description for the two slower groups, but not for the faster groups, whose history was much more a picture of agreement followed by re-evaluation.

As the next section on "Completion" will show, the easy atmosphere of Phase II changed once the groups got nearer to their deadlines. Both the type of work and the emotional tone of the meetings were distinctly different at

the end of group's lives.[9]

TASK COMPLETION

Much of the discussion up to now has been organized around the differences in pace among the four groups--the slow pair and the fast pair. The teams devoted their time to different activities because they were not all equally ready to work on the task, nor equally ready to work together as teams, when they began. While the Novices, for example, spent Phase I mostly on task definition, the CF Committee spent that portion of time mostly on construction work. By Phase II, the differences in pace became less visible; all four teams were doing construction work. An observer viewing them only at that point might have seen little divergence between the faster and the slower pair. However, the early differences in teams' pace did have repercussions on how they finished off their work. Though the activities of the completion period were basically the same for all groups, the faster teams had an easier time.

The process of task completion seemed almost to follow logically from the sort of work that the four teams had. All ended by a pre-appointed time, with a written product that would be evaluated by external audiences. The final meetings of all four groups were spent in the activities of editing papers and matching them to external requirements. The issues of evaluation and equity were prominent. At this stage, groups were different not because they were doing different activities, but because they were handling the same activities differently. These differences grew out of the way the groups had dealt with certain issues and tasks all along.

This section of the paper will depart somewhat from the pair-by-pair comparison. We will first see how the emotional tone of final meetings set them off from the ease of Phase II, then discuss the general reasons why the kind of work needed to finish the groups' tasks was different from the work that had come before. Finally, the major activities and issues of task completion will be examined one by one: matching products to external requirements; editing; equity; and evaluation. Case examples will be used to show differences across teams in the way these activities unfolded.

---

[9] This is consistent with other theories of group development that postulate a period of conflict toward the end of groups' lives. Bales and Strodtbeck (1951) describe positive and negative emotions rising at groups' endings. Bennis and Shepard (1974) and Mann, Gibbard and Hartman (1967) describe the negative emotions of "termination." In contrast to the idea that the difficulty of termination stems from regret or anger that the group is ending per se, the next section will suggest that some end-period difficulties are direct outcomes of problems sown earlier in the group's work.

Emotional Tone of Final Meetings: The Tension of Completing a Product

A certain amount of tension cropped up in all final meetings. Particularly for the three student groups, Novices, Policymakers, and Strategic Planners, completion meetings[10] were very hard. In part, this was because work on the paper could no longer be postponed, and people simply had to keep going until everything was done. Students' meetings ranged from 5 1/2 hours for the Strategic Planners, to 11 hours for the Policymakers. Each student group became discouraged over the unexpectedly large amount left to be done, and each had to make major reassessments of the time needed to finish. Clock watching, joking, and other evidence of tension appeared, much more than any other time in groups' life cycles.

The Novices

The last meeting started thirty minutes late. After one hour of work, the group discovered that major revisions were needed.

DIALOGUE 18.

1 Grace: Who has extra paper? ...I didn't expect to do so much work--

2 Alexandra: Yeah--if we change the format now, it will take a lot more time--

(Long pause: Grace writes, Alexandra and Will look down.)

3 Alexandra: What time is it anyway?

Strategic Planners

About one hour ⊥ ` ` the last meeting of work on the paper, the following exchanges took place:

DIALOGUE 19.

1 Rajeev: So these two documents should be merged to a certain extent--so we still have to write the memo.

2 Jack: Are you saying this isn't the memo!?

(Twenty minutes pass.)

3 Rajeev: What time do you think we should be able to leave here?

4 Bert: 7:00

---

[10] The phenomena described in this section occurred during final meetings of work on the groups' papers. Two of the groups, who did oral presentations, met again once (Strategic Planners) and a few times (Policymakers) after the papers were completed to rehearse their oral presentations.

5 Rajeev: You are being optimistic...

6 Jack: I think we'll need some--

7 Rajeev: Good food!

8 Jack: No--each one, some time to work up stuff, whatever we have to work up.

(Back to work.)

Even the CF Committee, with the shortest meeting of two hours, showed initial flight from the task. They started late, and spent the first 15 or 20 minutes joking about such irrelevances as the state bird and Alan's tie. The amount of work was not the only difficult thing about final meetings. The sections below explore some of the tensions groups experienced over the activities common to final meetings.

Major Activities and Issues of Task Completion

One important reason that final meetings were distinct from earlier ones is that editing is different from invention--and editing for an outside audience is different from talking among oneselves. At the groups' early meetings, the work was largely a generative process. Members explored and organized information, and created new ideas. Room for ideas was relatively large, constrained only by the amount of time in meetings and members' willingness to listen. Groups tended not to be particularly meticulous about testing ideas against external requirements; meanings and implications of ideas might be left vague. At the final meetings, the necessity of committing ideas to paper required a change of work process. Since papers were written for outside audiences, it meant translating vague, in-group agreements into a concrete form that outsiders would understand. Especially for the students, it meant that the amount of available space shrank to a small, finite number of pages. Some members' ideas might not be included, and perhaps more importantly, it forced members to think about the consequences of outsiders reading their work--how outsiders would use it, and what standards they would apply in evaluating it. The early processes involved creating, adding-on, and coming to agreement within the small group. The completion process involved prioritizing, cutting, and repairing the groups' work, with a careful eye toward its outside audiences. This will be broken down into four related areas for discussion: (a) matching a product to external requirements, (b) the work of editing, and the issues of (c) equity and (d) evaluation.

Matching the Product to External Requirements

Illustration of the activity. In all the groups, a prominent part of the final meeting involved some form of matching the paper to external requirements. A few excerpts from the CF Committee will illustrate the activity. That group came to the last meeting with a full draft in hand, prepared by Diane and Phil and sent to all group members before the meeting. For them, matching the paper to external requirements meant making sure that

the finished evaluation plan did not conflict with Centralized Fundraising's needs and limits--or antagonize member agencies. They edited with the goals of preserving flexibility for CF, and minimizing the threat the report would present to the agencies. Here are excerpts from scattered points in the meeting:

David: "You can't promise [X] and then do [Y]."

Alan: "You don't want to tie the hands of the Planning Committee--do you do [this procedure] normally, or just for special cases?"

Harriet: "Why not write '...and where appropriate'? That leaves you an out."

Harriet: "I'd rather not have this statement in the report. Just tell them if they ask."

Alan: "I sense that Diane wants to legitimize the process."

Diane: "I'll just de-emphasize this paragraph..."

The excerpts from CF provide clear examples of a group checking out its work against real life consequences. It is interesting to note that the members of this group probably "knew" these external requirements as well before they started work as at their final meeting. But they did not construct the plan with such attention to detail. That was not the primary work of earlier meetings. The process of reading a final draft through the eyes of the external audience was, in contrast, the spotlighted task of their final meeting.

Variations in how it unfolded. At least for the CF Committee, the process seemed straightforward enough. In the student groups, the task of making the paper conform to external requirements was a little more complex, because students did not know the external requirements from their own experience. Their requirements were the specifications that instructors had outlined for them, and part of their task was to learn what the instructors' requirements meant. Student groups varied widely in the amount of difficulty this presented. Not surprisingly, the earlier in their life cycle they had checked their work against the requirements, the easier completion meetings went for them.

There was a fair amount of range in the timing of students' first check on the instructors' requirements. For the Strategic Planners, this happened at the transition, when they gave their Phase I work a major overhaul to bring it into line with course requirements. The Policymakers also looked at the instructors' requirements at the transitional mid-point--albeit less thoroughly. Since they had to give a practice rehearsal for the instructors, they backed into using the requirements to get some structure into the unorganized ideas they had developed during their first meetings. The Novices, however, used the first half of their time to establish the scope of their task, and were just beginning to construct a problem solution in the post-transitional period. They went through their transition without having

anything concrete to evaluate, and they entered their last meeting without ever having discussed the instructor's requirements. Some contrasting dialogues from groups on opposite poles of this dimension--the Novices and the Strategic Planners--shows the variation in groups' matching of papers to external requirements.

Novices. Prior to their last meeting, one member of the Novices, Will, had agreed to combine partial outlines from the other members into a single written draft. The following dialogue opens about five minutes into the group's last meeting.[11]

DIALOGUE 20.

1 Alexandra: I don't remember--did he call for an analysis of the problem?

2 Will: Yes it does--our assignment--that was what made things a little rough, for when I read what we're expected to have in the memo as a course requirement, we really have to have about four things. There's the analysis, and the recommendations, and how those recommendations are to be implemented, and, finally, for group projects, the technical back-up. So in other words, I sort of had to come up with all of that. (Laughs)

3 Alexandra: ...God, I never thought to look at it. I just thought it was recommendations.

4 Grace: I looked at it after we finished.

5 Alexandra: Do you want to go through this line by line or--

(The group begins to go through the draft.) Later in the meeting:

6 Will: One of the things we're probably weak on in this paper, because we just never thought to talk about it, is implementation. We've got the recommendations--but we will be judged poorly if we just toss out a simple thing like "verify"...and don't tell how to do it.

7 Alexandra: So we need something else to cover "verify".

(Long pause)

8 Alexandra: How do you normally [implement that suggestion]?

Later, discussing a subsequent recommendation in their paper:

9 Alexandra: What normally happens when a person's being evaluated? Maybe we could (she suggests a way to implement recommendation.)

10 (Alexandra and Will talk about a possible way to implement the recommendation.)

---

[11] One of the members, Louanne, was absent.

11 Grace: Or we could just do... It's not good implementation...

12 Will: Yeah. The problem is even that's a fairly general thing to say--

13 Grace: That's the weakness. (Pause) All right--let's come back to it.

14 Will: You want to?

(Pause)

15 Alexandra: So #4's okay though? (Alexandra gets no reply; she goes on to another point.)

16 Grace: On #4 and 5--since we have to be a little bit stronger on implementation, it seems to me we could ... reorganize them so that the recommendation is [...]

17 Will: In other words make the whole thing basically one recommendation.

(Pause)

18 Grace [Yes] ...because if you are trying to have a recommendation and an implementation for every item--

(Alexandra and Will look at their papers; Grace tries out more rearrangements.)

19 Alexandra: Okay on #4--want to go back?

20 Grace: Yeah--on #4 it would be (proposes a way to state the recommendation)

21 Alexandra: We're reaching though--in all of this we're really reaching. We don't have much time to substantiate--but I guess that's the technical back-up...

22 Grace: I think our content--is good--but I think we weren't clear when we were talking about it on--what's a recommendation, and what are the steps, and it's just a matter of reorganizing it in that light.

Statements 1-4 show that none of the Novices had looked at the paper requirements during the time the group had worked on the problem solution. Some of the consequences of this are evident in the dialogue. First, Will had to "come up with" much of the group's paper by himself. This contributed to a problem of perceived inequity in the group that will be discussed below. The rest of the dialogue shows a fairly painful realization of major flaws in their work, and the group's attempt to address them. As statements 8 and 9 suggest, there appear to have been non-trivial chunks of work that the group simply had not done. The numerous pauses in the dialogue are some testimony to the difficulty of recognizing large gaps so late in the process. Statements 16 and 22 show one way the group tried to pull themselves out of this apparent hole--by construing the flaws as a simple problem of

reorganization. This was not a point in their life cycle when group members could start planning major new sections of the paper. The paper was due the next day, and they had to repair the structure they had, not build a new one.

We might consider how this group got into such a predicament. It is important to recall that this was the least experienced group in the sample. These were first year students doing their first case assignments for the particular course, and possibly their first cases for any course. It could be that this was an unusually short-sighted group, but, as teachers know, students often perform poorly on the first assignment. There is one clue about the source of this problem in the dialogue. Statement 22 shows Grace's analysis of the situation--they hadn't realized the distinction between "recommendation" and "implementation." Given their general inexperience, it may have been hard for them to grasp this difference before they had some recommendations down on paper. As we will see shortly, the Strategic Planners' history supports the notion that group members need experience working with a task before they can grasp the meaning of abstract,[12] externally-imposed requirements.

The question remains as to why they didn't even read the requirements until so late. It is important to remember that, as the discussion of Phase I showed, all of the four groups ignored the instructor/task assigner in their first several meetings. It may be that either the task assigner has to take the initiative (as with the Policymakers' required rehearsal) or the group has to progress through the construction level of the work hierarchy (as with the Strategic Planners, the CF Committee, and the Novices) before it will be ready to attend to or understand external requirements.

Strategic Planners. Unlike the Novices, the Strategic Planners had some experience working for the instructor and a head start on the case itself. Nevertheless, they needed some time working with the problem in order to understand the instructor's requirements. Their first expression of concern about course requirements occurred in the last 10 minutes of their second work meeting:

Rajeev: "I still don't understand what [the instructor] wants."

Jack: "I know--I'm just saying hopefully by the time we've decided what he wants, we can then give him something. We're still at the earlier phase and I'm not sure how long that's gonna take. That's where we're gonna be Sunday. Our sections ready to merge and put into some sort of form."

By their transitional (third) meeting, they did have a better grasp of what was required. This came much earlier in time than it did for the Novices, although, again, neither group really looked at requirements until it had some construction work done. A look back at the dialogue of their transitional meeting shows a much different evaluation process than the Novices'. While their attention was focussed on limitations in their work, they do not appear so discouraged. The activity for them was a mapping of

---

[12] Presumably there would not be a problem with groups understanding such concrete requirements as might be given for very simple work.

their agenda for further construction work, not an eleventh hour repair job. The Strategic Planners went through another "requirement check" three days before their paper was due. This process yielded a list of things to be done, which Rajeev and Jack divided between themselves and prepared for their formal meeting. (Bert was out of town at the time). At that point, they still had time for individual and group work.

Rajeev, Jack, and Bert arrived at their final meeting, each with his own completed homework assignment. The major task of the meeting was to put these pieces together into a paper. About five minutes into the meeting, they decided to "start from the top with Bert's memo and see what fits where." Having gone over everything once, Rajeev observed: "I think we have all the ideas. We have a good handle on the thing. The main task is how to arrange them."

This brought the group to a place that looks somewhat similar to the Novices. Both groups framed their completion work as arranging what they already had. But there was a real difference in the groups' sense of the adequacy of the material they were arranging. Compare the Novices' dialogue to this discussion:

DIALOGUE 21.

1 Jack: Let's take it through orderly. What goes in the memo versus what goes in the technical back-up? (He goes to the blackboard.) I'm just going through the list we made up--

2 Rajeev: Well, we have the list--

3 Jack: Okay--How would we refer to [X] in the body of the memo? (He writes a suggestion on the board)

4 Bert: That could be the strategy for the cash flow.

5 Jack: Yeah. Okay!

6 Bert: Okay, we have to make sure that's stated in the technical back-up.

7 Jack: Okay. Then we had implementation. I think we want bullets.

8 Rajeev: Yeah.

(Jack and Rajeev list the points they want for the bullets.)

9 Bert: To what extent do we have to talk about implementation in the four-page memo?

10 Jack: The one thing that we were hitting all along was that he should hire somebody.

11 Rajeev: And that he should also shift his own emphasis--

12 Jack: Yeah, good. That's good!

This dialogue does not show a group that is finished with the work--but it should give a sense of the extent to which the Strategic Planners were ready to finish. In statements 7-12, for example, the group is not wondering what "implementation" means, or trying to think of an implementation plan; they are putting completed ideas into place. Their previous exercise of going through the paper requirements seems to have made a difference for them.

Summary: Meeting external requirements. If we forgot about pace, and looked only at the Novices' and Strategic Planners' progress through the hierarchy of work activities, the two teams would look very similar in the attention they gave to external requirements. At their first meetings, both teams paid a fair amount of attention to the client, but disregarded their instructors' directions. In fact, neither team really referred to the instructors' requirements at all until it had completed some construction and moved into evaluation work. The groups' main questions then seemed to be: "If we hand in this particular piece of work, what will the consequences be for us?" As it happened, the Strategic Planners "got there" early enough to make much more use of the requirements to revise their report. (The discussion of the CF Committee's transition revealed the same pattern. An initial concern with the member agencies (their clients) gave way after some construction work to an evaluation of the consequences that the group's solution would pose for the CF Organization.)

These data support the suggestion made at the conclusion of Phase I: that the stage of the team's work on the task affects the kind of instructions from outside the group that will be heard and used. The degree of experience that a team has with the task is a likely moderator of this phenor .non. The more experience a team has, the better it will be able to envision both the general shape of the eventual product, and the meaning of the requirements as applied to that product. The Novices, who had the least experience, certainly went furthest afield in their work, and had the most drastic corrections to make at the end. Nevertheless, the examples of the more experienced Strategic Planners and CF Committee still suggest that the activity of checking a product against outside requirements is something that follows, rather than precedes, construction, at least for the type of creative task work observed.

The Work of Editing

Illustration of the activity. The work of editing a paper in a group, as stated above, is not the same as the luxurious process of talking about ideas. It implies a need to make decisions and commitments to a final statement. It entails organizing, stating priorities, and cutting, in addition to clarifying a piece in the interest of audience understanding. Some excerpts from the Strategic Planners' last meeting illustrate what the work is:

"I'm confused by what you want to accomplish" (in response to one member's reading his section of the draft)

"I'm not disagreeing with anything you're saying. But I think you got 'em in the wrong section. That's a problem we gotta work on."

"I think it's important to isolate a planner, but not important enough to spend more than 30 seconds on."

"I'm not sure you can do all that in four pages."

Variations in how it unfolded. This sort of editing work was a prominent last-meeting activity for all the groups. The area where the groups differed was in how comfortable they felt about it, and how easily it went. The process of deciding whether or not someone's idea got into the final product, and how much space it got, was more difficult for some groups than others. A comparison of a group for whom this was very easy, with one for whom it was more difficult, suggests some possible concomitants.

The CF Committee. The group that had the shortest last meeting, and the easiest editing process, was the CF group. There were important reasons for this. First, the group's final draft was much more complete by the last meeting than any of the other papers. Secondly, the balance of responsibility for, and ownership of the work was much different for CF than the other groups.

The students were all equally responsible for doing the actual production work for the paper, and would all be equally affected by its final quality. The paper would receive one grade, to be recorded alike for each member. This was not the case for the CF Committee. There, it was understood that Diane, the CF officer who would be using the group's product, and Phil her assistant, would do the actual production work for the final report. (They wrote a complete draft between the third and last meetings). The others were expecting to advise, help plan the design, and help edit. They did not expect to contribute as much as Diane. Furthermore, the consequences of the design would affect Diane more than any other member of the group. All the members had their reputations to guard, since their names would appear on a document to be read by people significant to them. But Diane was the one who would be living with the group's results.

In their editing process, Diane's opinions were given special attention. Harriet initiated the work of the meeting by asking her "can we make changes?", and members' efforts were directed toward making the report something that Diane could work with. The group moved through the document rapidly. There were sometimes as few as two to six comments from the statement of a problem to agreement on a solution.   This was partly because the group appeared very willing to cut out troublesome segments of the document, rather than tinker with them. Also, given their basic satisfaction with the report, members' investment appeared to be much more in helping Diane than in preserving their own ideas about it. At this point, she was clear enough about her staff's needs and limits that the decisionmaking process could move fast. For the CF group, the last meeting was the easiest, with members in quite good spirits.

The Student Groups. The last meeting was not the easiest for any of the student groups, at least partly because of the tension of editing and evaluating each other's work. A brief excerpt from the Strategic Planners gives a sense of the difficulty people can feel about this:

DIALOGUE 22. Late in the meeting.

1 Rajeev: But before you change--I wonder if we should also include the idea that we based our ideas on--and we have an exhibit on that too.

2 Jack: Let's just put that in as extra. It doesn't really flow. My activities thing isn't in either.

3 Rajeev: Jesus!

4 Jack: Just kidding.

5 Bert: It's getting late.

This was a group that had a relatively good handle on the entire project: the exchange above took place only after they had already been at work for almost five hours. The editing process was a bit more difficult from the start for the Novices. At their transitional meeting (3rd meeting) they had decided that the three women in the group would develop idea-outlines, each for about a third of the paper. Will would not do this, but would write the combined draft. This seems to have created an awkward balance of task ownership by the 6th and final meeting:

DIALOGUE 23. Five minutes into the meeting.

1 Will: Have you people already sort of decided on what sort of revisions you want to make? Or did you just sort of read it over?

2 Grace: I didn't have much trouble with content, except I wasn't clear on the math on page two...

3 Will: Okay. I can work out the math in the technical back-up if we want, but all the math is, is ... in doing this you just have to make some sort of assumptions, so what I assumed was [...] So that's where I got the numbers.

4 Grace: Um hum. I think you should spell all the numbers out in the back.[13]

(Pause)

5 Grace: (Raises a slightly different point.) ...I would put that in the technical back-up.

6 Will: Yeah. Okay. The way I explained it in the technical back-up was [...] and that's the way I explained it, but maybe that is unclear--

7 Grace: Because they might become defensive and discard the idea if they thought...

---

[13] Underlines are my emphasis throughout this dialogue.

8 Alexandra: Yeah. And not only that, if <u>you</u> put the numbers out . . if <u>you</u> can do it...without making it more unclear--

9 Will: Yeah.

10 Alexandra: If I were to do it, I'd make it more unclear.

11 Will (Laughs)

12 Alexandra: There's one thing about content--I think (objects to part of the language). You know, if <u>you're</u> going to say something like that, I think you should say (proposes different phrase) ...Does anybody else get that feeling, or is that just me being overly sensitive?

Ten minutes later:

13 Will: What I'm just wondering is--we do have to cut the length of this thing by almost a full page. If there are recommendations that, I mean a simple way to do it is just to cut particular recommendations which are less critical than others--um--could we consider cutting that one, do you think? We sort of have to get it down to our very best recommendations.

14 Grace: Sure. I'd have no trouble with that.

15 Will: Would that be all right?

Later:

16 Will: The reason that's there is that Louanne had it red lined.

17 (Grace and Alexandra question the recommendation. Louanne was not present at this meeting.)

18 Will: The only thing was--I tried to incorporate everyone's suggestions, and these two were Louanne's. Of course she isn't here to represent herself... (argues for keeping the idea in the paper)

The Novices' conversation suggests that Will owned the paper but not the ideas, and the other members owned the ideas but not the paper. The members' use of pronouns (underlined in statements 4, 8 and 12) imply their assumptions that the paper is now Will's responsibility, but the content of their remarks shows that they are still invested in it. Will's agenda, as shown in statement 13, is not so much to tinker with the ideas now, but to trim whole recommendations out of the paper. Recommendations that "belonged" to the others. Grace's statement #7, "...they might become defensive and discard the idea..." is interesting because it underscores the feeling of defensiveness and walking on eggs that laces this discussion.

Given that previous meetings had not pitted Alexandra and Grace against Will, it does not seem warranted to write off this meeting as a personality clash. Rather, it seems that the group's particular division of labor carried some built-in potential for conflict. The contrasting example of the CF group

is particularly interesting because it belies the notion that mechanical equality of task investment, or equality of space for everyone's ideas are the most important things. The Novices probably had more equality in these respects than the CF Committee. Some form of consistency might be the more important difference between the groups.

Summary: Editing. When the CF people reached the final meeting, their agendas were mutually consistent. There seemed to be agreement that the task was to edit so as to help Diane, and that she was the appropriate arbiter of decisions. In contrast, the Novice's division of labor set up conflicting agendas. It was understandable that Will would want to defend his paper draft but cut out ideas, and that Grace and Alexandra were more inclined to attack the draft in defense of their ideas.

Equity

Illustration of the issue. The example of the CF Committee shows that members need not be equally invested in a task, nor equally represented in a product in order to work together. It also shows that a group may consider it appropriate for members to contribute unequal amounts of work. For the CF group, the extra work done by two group members matched their extra investment in the consequences of the work. Perhaps because their work load distribution was simple and fixed, equity was not discussed in the CF Committee. This was not the case for the students.

The students were supposed to be equals as contributors; they would definitely all be equal recipients of the consequences. The question of how much work different members were doing, or ought to do, came up early for all three student groups. The discussion of Phase I showed the Novices' and Strategic Planners' first-meeting negotiations about members' future contributions to the work. As time went on, equity became less and less hypothetical. Whether or not members knew literally how much work each did, people were accumulating feelings about how their contributions compared to others'. While equity was an issue all along, it is appropriately discussed as a part of the end of groups' life cycles, when the transition from potential to (perceived) actual contributions was about over.

There appear to be two kinds of comments people in the groups made about equity: hard ones and easy ones. The easy ones came in advance of problems (e.g., volunteered statements about one's own contributions, such as "I'll be through with my other classwork on Friday, so I'll be able to take some of the load off you guys over the weekend") or front-end discussions about how to plan for a fair division of work. The hard ones were the comments that came in response to problems. This involved telling others that they were offering too little or taking too much. The confrontations were group members' way of readjusting a distribution of labor that felt unfair. The cases suggested that this kind of readjustment, though difficult, was very important to group members' parting feelings about each other. Of the three student groups, the Strategic Planners had a mild confrontation early in their life cycle; the Novices had a difficult confrontation at the last meeting, and the Policymakers had no confrontations. At the completion phase of their projects, the affect of the three groups could be described, respectively, as

positive, slightly negative, and (for some members) negative. We will look at how each of the three student groups handled equity, and at how that affected members' feelings about the groups.

Variations in how the issue unfolded. Consider first the Strategic Planners. Members of this group had many discussions about division of labor, almost all rational planning sessions. There was one main discussion early in their life cycle--after the second meeting--when they confronted some real disagreements about preferred style, and worked explicitly on equity:

DIALOGUE 24.

1 Bert: I could come tomorrow night but I'm a little limited on time. My mother's in town this week and I don't want to take away too much time, but I could do it.

2 Jack: Tell her you'll flunk.

3 Bert: No--she's not putting any constraints on me--I just want to--maybe we should say briefly where we want to be on each of th̶ ̶ ̶ays. Like by Sunday at 9 we should have the paper done.

4 Rajeev: What is the end product going to look like;

5 Jack: It worked fine last time [to divide up the writing]. By Sunday we will have our sections ready to merge and put into some sort of form. You get it together, try to edit--what we have to do is agree on the type of thing that each person--

6 Rajeev: But I wonder.

7 Jack: If it's too late? 'cause he's going away Thursday and--

8 Rajeev: Yeah, can't we produce something...I think we should have an outline of the final product by Thursday, and agree on it on Thursday.

9 Bert: Can we meet--ah--tonight? Maybe 9:30?

10 Rajeev: No. I have something to prepare for a course tomorrow.

11 Jack: We're running into a problem here.

12 Rajeev: Tomorrow night you have a problem?

13 Bert: Well, you see what I wanna do is that--Thursday, I'm busy all day... So we won't be able to have any product by the time I leave unless I have a chunk of time tomorrow afternoon to work on it.

14 Jack: What do you mean "product before you leave?" We just have to sort of get agreement among ourselves. The product hopefully will be turned out while you're away.

15 Bert: ...I'm in agreement to be--cut off from writing or whatever--if it makes it easier for you.

16 Rajeev: No, no--we are not in agreement about that! (Laughs)

17 Bert: You know--if you're gonna write the thing while I'm away that's fine, but I--you know, I wanna--

18 Jack: No. I'm trying to say [we should get an idea of what each of us is going to write, before you go, and then merge the parts on Sunday.]

19 (Rajeev proposes to draw up an outline that night, and Bert suggests that they meet the next day.)

20 Jack: Okay, good. So if you're gonna outline this, like why don't I outline some of my own ideas--try to get something down on paper--

21 Rajeev: If you would like to do the outline, do it--I don't mind, but I worked once before and the best way it worked out--somebody put a first draft and it was--a first draft. Everybody criticized it and the person who wrote it really didn't feel bad about that because--

22 Bert: (Laughs) It must have been a saint!

23 Rajeev: ...I felt it was so efficient that--we should do that every time, almost.

24 Jack: (Suggests that both he and Rajeev do outlines.)

25 Rajeev: Well, if you want to make an attempt--I'm--I'm tight on time tonight--

26 Jack: All right, let me--

27 Bert: What time do you think that outline would be in mailbox--because if you could put some bones in my mailbox, maybe I could put some meat on 'em tonight--and then talk about a little meat tomorrow.

28 Rajeev: All right, why don't you do it, Jack, and, um--

29 Jack: All right, I'll do that, cause if I do that then I'll end up writing the memo. You know if I get that much into it, then maybe when we divide it up maybe I'll do that instead of--

30 Rajeev: But actually, I think I better do the outline. Because you may write better English. In the final versions, well, I'll be writing--the bones.

31 Bert: Rajeev? When do you think you might have the bones ready? 10:00? 9:00?

32 Rajeev: Yeah--some time tonight.

This is an interestingly complex discussion. Each person has a preferred balance of involvement in the project, stated pretty straightforwardly. There is an absolute range of contribution that feels right to each person. No one wants to devote too much to the project (e.g., statements 3, 10, 29), but neither does anyone want to be "cut out" (e.g., statements 17, 19, 20, 30) People also have feelings about how much their team mates ought to put in: neither too little (statement 16) nor too much (statement 30) in comparison to themselves. In addition to the balancing over amount, the conversation also shows the group compromising over whose wishes about work strategy should be followed. Bert had wanted to be completely finished by Thursday; Rajeev had wanted to do successive group iterations; Jack had wanted to leave the paper to be written in individual parts between Thursday and Sunday. Rajeev's strategy, mid-way between the preferences of Jack and Bert, was the one they chose.

The Strategic Planners worked through these equity issues at their second meeting. There were no comparable disagreements about equity at the end of their life cycle. In contrast, they talked about their similarities, and expressed pleasure over each other's work:

DIALOGUE 25. Four hours into their last meeting of work on the paper.

1 Jack: (to Bert) I'm getting used to your writing style.

2 Bert: Lousy! (Laughs) I went through college and wrote one paper. Tons of lab reports, but no papers.

3 Rajeev: That is why you're like me. I like bullets!

Thirty minutes before their presentation for the client:

4 Jack: Mr. Rajeev is gonna be our star!

5 Bert: He's good. He'll talk "engineering speak!"

Novices. For the Novices, confrontation over equity did not come up until the last meeting. At that point, it was a discussion of damage already done, and an attempt to even things up. The Novices had tried to work out a fair division of labor at their third meeting, when they decided that if Will was going to write the paper, he shouldn't have to do any preliminary outlines of ideas. As the previous section showed, this did not work out very well.

The group's unfamiliarity with the paper requirements created additional problems, since it forced Will to "come up with" large parts of the substantive work by himself. Alexandra's and Grace's assumptions of Will's responsibility for writing the paper, and the two-against-one pattern of their last meeting have been described above. This pattern did not go on too long before Will began to object. He said he had put in enough time, and that he did not want to do the revisions. Alexandra and Grace tried to tell him that there wasn't much left--"all you're worrying about is typing the thing." But he finally became adamant. At that point, Grace agreed to "type" the final draft, provided someone would help her write. She then took over the revision

process, and the lopsided communication pattern shifted so that Grace did most of the talking. Alexandra maintained a polite level of response; Will became relatively silent for a while, then joined in again later. After they had worked for three hours, Alexandra left for another commitment, expressing simultaneous guilt and gratitude to the others: "Thank you for allowing me to go." Grace and Will spent several more hours finishing the paper.

The feelings evident at the close of this group's life cycle moved from resentment about having done too much (Will), to sense of obligation to even things up (Grace), to guilt about contributing too little (Alexandra). I did not observe the kind of enjoyment of each other's contributions that the Strategic Planners expressed, but at least the Novices were cohesive enough to talk to each other about their feelings about equity.

Policymakers. The group that finished up with some of the most dissatisfied members showed a much different reaction to equity problems. Not only were problems not discussed, they were virtually denied. The Policymakers actually had two tasks to do as a group. They had to prepare a very short position paper one week, then work out the larger policy paper the next week. Jim and Alice did most of the work on the first short paper; Alice wrote it by herself. Paul attended only one of the group's meetings about that part of the work. Members spoke to each other about the balance of the work load several times that week, but with curious results, as seen below.

DIALOGUE 26.

Wednesday (The first meeting, for the first task.)

1 Paul: I'm gonna budget about an hour, hour and a half on this.

2 Jim: So am I. (Subject changes.)

Thursday

3 Jim: (Describes the reading he did that afternoon.)

4 Andy: I may be able to do some tonight... Where was it in the library?

5 Jim: (Tells him.)

6 Andy: (Questions Jim about the reading, and Jim responds with a fairly extensive summary.)

7 Jim: Why don't you take some notes on the written section? I just want to get this--it's a pain in the butt. It's not worth agonizing over.

8 (Jim and Andy exchange looks.) Jim: (to Andy) You agree!

9 Andy: Yeah! (They laugh.)

Friday

10 (Jim and Alice discuss the readings.)

11 Andy: This is in our stuff? This testimony?

12 Jim: Right, um--page 16... They also said (explains several points.)

13 Andy: If I remember correctly, they advocated using teams for trade
negotiations--but that was a ten-year old reading. They thought teams
would be sort of good--forming structure--but I don't remember much more
about it--

14 Jim: Me either. I didn't do much of the readings--I mean, I skimmed the
stuff, and I don't understand a lot of the situation that was referred to
in the testimony.

The following Monday

15 Jim: (to Alice) Andy came up to me in the mailroom and said he felt bad be
hadn't been pulling his weight--but it's been that way for me too--

16 Alice: There hasn't been that much for me to do at this point.

17 Jim: I think your write-up is good--touched all the main points, and it's
very much the sense of the testimony.

18 Alice: It's _exactly_ the testimony! (Meaning: "All I did was copy the
testimony.")

In the first of these exchanges, one member states explicitly that he is
going to spend the same amount of time on the assignment as the first speaker.
In each subsequent exchange, it seems as though the member who has obviously
put more work into the assignment seeks to balance the load by denying his or
her own contribution. In statement #7, Jim suggests a task that Andy might
do. He has clearly done more work than his teammate, but seems almost
apologetic about it. On the following day, their conversation again reveals
that Jim has done more work than Andy, but Jim denies his own familiarity with
the reading. The next two exchanges show similar denials from Alice.

Some comments that were made about the substance of the case suggest that
this way of balancing the work load was not entirely satisfactory. The day
before the position paper (the first task) is due, Andy, Jim, and Alice are
going over the draft that Alice wrote.

DIALOGUE 27.

1 Alice: ...What is the U.S. position? The question is whether the U.S.
really wants--

2 Jim: Or is it being a spoiled brat? ...I think it would be to the U.S.
advantage to start negotiating, because otherwise everyone else will get so
resentful. To the rest of the world, the U.S. is being the kid with all the
lollipops, not wanting to let any go. So that's what I think the U.S.
should do.

3 Alice: I think you have to think about what was said in the presentations. More studies are needed--its bad to rush in.

4 Jim: Right. The first step is to study. But the U.S. hasn't been studying--

5 Alice: That's right! (Laughs)

6 Jim: I mean, it's one thing to hold off on negotiations, but its another thing to ignore the issue altogether! Maybe I'm wrong, but that's my sense.

7 Andy: No way! (They laugh.)

(Jim and Andy talk about the U.S. and foreign governments.)

8 Andy: There's nothing really pushing the U.S. to develop formal policy now.

The dialogue about the U.S. could easily be read as an expression of Jim's resentment (with perhaps some support from Alice) about having to work while others haven't been studying. Andy's reply provides interesting evidence that balancing by denial may contribute to a "Why should I?" attitude on the part of the non-studier. These interactions contrast sharply with the Strategic Planners' explicit statements of their views about the amount their teammates should put in. It must be stated, however, that the Strategic Planners had their discussion before any particular resentments had built up. As the dates of the above excerpts show, the Policymakers had already accumulated a gradual imbalance in the amount of work members contributed.

Further on in the Policymakers' work, there was evidence of a different kind of trouble brewing over equity. The following discussion is one of several similar ones that took place in the group.

DIALOGUE 28.

1 Paul: So we'll meet at ten tomorrow? How 'bout--we write.

2 Alice: We don't all write everything--

3 Paul: I'll write introduction.

4 Andy: How about if I write goals and plan?

5 Jim: Um--what's left?

Notice that the group does not lay out the work to be done, and then plan who should do what. Each person, in effect, grabs a piece that he wants, leaving the last in line to ask "What's left?" Apart from the coordination problems of this sort of task allotment, it appears that members were disinclined to view the task as a genuinely shared group property.

Toward the end of their life cycle, resentments were developing over members' perceptions that they were getting too little, while others were

taking too much. At the last meeting of work on the paper, an eleven-hour marathon, Paul began to express his frustration at having to coordinate with others:

"I just realized what's different about this module--the nature of this task is very unitary--it almost requires a single person..."

"This is a helluva project to do in a group!"

It became evident, too, that Jim was dissatisfied with Paul's speaking style, and that he questioned whether Paul should do so much of the oral presentation. He mentioned this late in the group's last session of work on the paper, at a time when Paul was out of the meeting room. Andy said he thought Paul knew the material very well, and Jim decided that it would be "easier to let him do it and just take what comes." The imbalance became more firmly set shortly after that, with this exchange:

Andy: "Jim--You say the lead-in's gonna be half?"

Paul: "I'll write that up."

Jim: "Yeah--you've got a good handle on that."

The following day, the group met to plan their oral presentation. Through a series of mix-ups, everyone kept everyone else waiting at the wrong locations, and Andy skipped the meeting entirely to go to the gym. Everyone present was angry. Soon after the meeting finally began, the members had two brief but highly emotionally charged arguments:

DIALOGUE 29. A few minutes into the meeting.

1 Alice: (to Paul) Jim and I were talking and the only question that came up is--

2 Jim: I, I had an idea in terms of just thematically that it made sense for the same person to present these points, and these points could be shortened--for this section to be done by one person... And I was wondering what--is there some kind of a logical break in the first page--

3 Paul: I'd just soon do it.

4 Jim: --that would make it--that it makes sense for two people to do the first section.

5 Paul: I don't believe so.

6 Jim: On what grounds?

7 Paul: 'Cause I don't believe so.

8 Jim: Oh. Well--I mean I kind of dis--

9 Paul: I'd just soon do it.

10 Jim: Okay. What I'm--

11 Paul: I've been over it so many times I think I do it well, and I'd just soon do it.

12 Jim: Um hum. Well what about the shortness of this? My point is not that you can't do this first part well, but that it leaves the other part of the presentation--in other words, you're gonna be doing half the talking, and then the other half will be three people who will each say, like one minute or two minutes. And I'm wondering if that kind of an imbalance--we might want to steer away from.

13 Paul: I don't think so.

14 Jim: What's your sense, Alice?

15 Alice: I guess my sense is, I would like to see it more evenly balanced if there were some way. Um. (To Paul:) I understand your feeling about the first part.

16 Jim: Yeah, you know it better than I do--that's for sure--

17 Paul: I think it'll make a better presentation--not that I am extremely anxious to get up before 5 guys that head 5 different corporations...for the majority of the show. But I don't think that you can break it and keep thematic unity through it.

18 Jim: Well, it seemed like this might be a breaking point. ...Um--this paragraph--

19 Paul: You wanna re-edit it go ahead. I don't think that what you're saying makes a whole lotta sense.

20 Jim: Okay, well then, um--

21 Paul: Maybe I'm being stubborn. It's not that I feel particularly turfy about it but--honest to God for the sake of the presentation. I don't wanna be in this--position either all that much--but I think it would make a better job and--you talk about balance or imbalance--you know, we're all going to hang or fall together on this thing.

22 Alice: I don't think that the balance is a question of who was going to--get a longer piece of rope!

23 Paul: But--you know--

24 Jim: Well maybe its not that important.

25 Paul: I think it's an artificial concern.

A few minutes later, as the group discusses the visual exhibits for their presentation:

26 Jim: (to Paul) How does that "visual" clarify what we're saying?

27 Paul: I think it clarifies it. 'sides which it gives me a chance to make a sexy visual for the sake of making a sexy visual--You don't want a sexy visual? Okay.

28 Jim: No I don't think--

29 Paul: Okay, well, let's scrap that.

30 Jim: You don't have a visual--for the sake of having a visual...

31 Paul: Oh yeah--but I like visuals! ...Knock it out. You don't want this [either] eh?

32 Alice: I'm just not sure that it adds anything.

33 Paul: Okay, fine. Maybe it doesn't add anything. Let's skip that then. Okay.

(Two more similar exchanges take place.)

However transparently the problem of equity shows through the surface of the first discussion above, it is still argued as an issue of the quality of the presentation. By now, sufficient ill-will has built up that it is difficult to judge the argument over Paul's participation in the presentation on its merits. In any event, Paul refuses to give up any of his piece of the talk, and Jim and Alice back down. The quality of the argument is much more of a win-lose battle than a decision about performance strategy. In the next battle, Paul gives in to Jim immediately, as if in concession for winning the more important contest. The two members have argued, and have gone through some trading, but the feeling of inequity remained. The tone of interaction between Jim and Alice and Paul remained strained. After the group completed their presentation, the members walked off separately. They all went to the party that the instructors had planned for eveyone immediately after the presentations, but they did not speak to each other.

Summary: Equity. Several hypotheses about equity can be drawn from the four cases:

1. Equity does not depend on mechanical equivalence of members' contributions and rewards, but on members' perceptions that individuals' rewards are proportional to their contributions. This is suggested by the CF Committee, which had unequal participation but no problems about equity. The two members who were going to use the product were the two who did most of the work, to everyone's apparent satisfaction.

2. Equity will be much more important when the rewards (or consequences) are fixed at equal, than when reward/consequences can vary according to

members' contributions. This is suggested by the sharp contrast between the
CF Committee and the student groups. Equity appeared to be unimportant in the
CF Committee, but it was very important for all three student groups. A
possible reason is that since students would all get the same grade for the
team project, they were more vulnerable to free rider problems (i.e., some
members could do less work than others without taking a cut in their grade).

3. Where equity is an issue, disagreements about it are not easily
covered over. Group members may be able to discuss ideas so vaguely that they
don't realize disagreements for days, but this seems not be the case with
equity. Once Will, in the Novices, felt he had done too much work, his
teammates were unsuccessful at convincing him to do more. The Policymakers
tried several times to deny the unequality of members' contributions, but they
did not succeed in covering up the resentment about it.

4. Two skills appear important in managing equity: (a) front-end planning
for future work, and (b) post-hoc confrontation to readjust the division of
labor when members feel it to be unfair. Front-end planning is easier than
confrontation. A group's ability to succeed at it depends partly on their
knowledge and ability to predict the work accurately, and partly on their
willingness to share the planning process. The Novices were willing to share
the planning. They tried to arrange a fair division of labor, but they
misjudged the amount of work involved, and one member ended up with more work
than he wanted. The Policymakers' planning process was not shared. Members
claimed sections of the work for themselves in an individualistic way, and
some team members ended up feeling that they hadn't gotten as much work as
they wanted.

Confrontations occurred when team members wanted to correct existing
problems. The Strategic Planners had a mild confrontation over Bert's plans
to be out of town during a work period. The Novices had a confrontation over
Will's protest that too much work had been left up to him. Though these
confrontations were uncomfortable, they were important. The Strategic
Planners and the Novices both appeared to end up amicably enough. The
Policymakers, who never confronted their equity problems, concluded with some
lingering resentments between members.

Evaluation

Illustration of the issue. The issue of evaluation is inseparable from
all the processes discussed above--matching a paper to external requirements,
editing, and negotiating inter-member equity. At the end of the life cycle,
evaluation goes on at every level. Individuals have by now made important
internal evaluations of how much they got, and of the balance of equity among
the team members. In all four groups, some members presented their work for
other members at final meetings--and were evaluated in concrete terms within
the group. Evaluation occurred on another level when groups did editing and
repair work, reading their papers through the imagined, evaluative eyes of
outside audiences. For the student groups, final meetings were a time when
members speculated out loud: How would their work stack up against the work
of other groups in the class? Finally, completion meant that the paper had
changed from a set of plans into a product with specific qualities and limits,
to be evaluated in its own right.

As with the other areas discussed, the issue of evaluation was not born full grown at the last meeting. It developed gradually. Looking retrospectively over groups' life cycles, it appears that individual members started out with certain quality standards in mind (related partly to how important the task was for them). They negotiated with each other about their standards periodically, right from the start. Over time, approaching deadlines and fatigue entered into the negotiations. For this issue, variation across teams was less evident than variation over time. Therefore, the discussion will cover the influence of quality standards (task importance) deadlines, and then fatigue on teams' evaluation of their work.

The influence of members' standards of quality. The excerpt from the very beginning of the Novices' life cycle presented earlier shows a first-meeting negotiation about standards. Ken, who cared very much about the task, let Alexandra know that he expected the group to put in whatever time it would take to do the job. Some parallel negotiations took place very early in the Policymakers' lifecycle, as seen below.

DIALOGUE 30.

1 Jim: There's not a lot of time.

2 Alice: I think the whole timing on this is insane.

3 Paul: They could have passed it out earlier if they wanted a good job. I think they don't want a good job.

4 Jim: Well--I think we should do as good as we can with the amount of time.

5 Paul: That's exactly what I think. What do you think, Andy? You've been playing it close to the chest.

6 Andy: Yeah--I agree with you all.

A discussion between two members of the Strategic Planners shows, more clearly, the role of different standards in members' negotiations over how good the work should be. About three-quarters through the group's life, Rajeev and Jack are doing a "quality check" on the paper while driving back from a visit to the client's plant.

DIALOGUE 31.

1 Jack: Let's not get caught up in numbers.

2 Rajeev: I understand, Jack, but the guy came to the School to get his problem solved.

3 Jack: But we don't have the information--if we get caught in that we're never going to get out of it!

4 Rajeev: Yes, but--I agree with you, but we should at least throw out some ideas.

5 Jack: You can't to any degree with the information we have to go on. Come on, he's not expecting a total business plan after 1 1/2 weeks!

6 Rajeev: But the guy's coming to our School--giving us complete time--

7 Jack: I'm not concerned that we're gonna disappoint him--that's a problem between him and [the instructor]. My objective is to do well in the course, not--

8 Rajeev: But what about the name of the School?

9 Jack: If your're worried about the name of the School, do something else. If he wants a complete analysis he'll have to pay a consultant.

10 Rajeev: Okay. You have an important point. We should say that. But in spite of the fact that I agree with 88% of what you said, I disagree with 12%. The name of the School is important.

11 Jack: I think you're overstating it. I think he's not expecting that much--he's doing us a favor--expecting to get a little. He's interested in getting a little something from us but--

12 Rajeev: I don't know...

13 Jack: Just to finish up on this--I don't think we disagree that much. I understand what you're saying.

14 Rajeev: ...Let's go through the criteria... Okay: "Quality of recommendation for action." I think we're going to have a high quality thing.

15 Jack: Yeah. I think we're going to come out with something that will be of use to him.

To Rajeev, the task is important. He feels responsible to represent his school well, and to provide significant assistance to a client who is counting on him. Jack indentifies himself as a student in a course. He wants to do well in the course, but is much less concerned about "solving the guy's problem." At this point, the difference in their aspirations boils down to how much they should try to put into the paper, more than how well they should do whatever is in it. Note that, in statements 14 and 15, Jack and Rajeev have each picked up on the other's concerns. Rajeev addresses the instructor's requirements, and Jack talks about something that will "be of use" to the client. The negotiation has apparently influenced each one's way of talking about the work.

The influence of deadlines. When the Strategic Planners did this quality check, the importance of the task was an explicit focus of discussion. A discussion that took place at the close of the Novices' penultimate meeting shows, instead. the entrance of deadlines into negotiations over standards.

DIALOGUE 32.

1 Grace: It seems to me--I could ask a lot better questions now.

2 Alexandra: But do you want to admit to it? Because then why didn't you call him up?

3 Grace: Well, it's not too late--you could call him.

(Pause)

4 (Alexandra and Will laugh.) Together: Yes it is!

(A little more talk about how the paper will look.)

5 Will: What I like is that we're getting together several times.

6 Alexandra: You can see how the ideas build--

7 Will: It really shows that the group method works. I would have never got all those insights...

There was an evident difference between Grace and Will and Alexandra's evaluation of the group's progress by the next-to-last meeting. Grace thought things could stand improvement; Will and Alexandra were pleased. This discussion took place when Grace, Alexandra, and Louanne had just handed over their outlines to Will. He expected to write them into a paper between then and the final meeting--not to add anything to them. Will and Alexandra did not even take Grace's suggestion seriously. It was "too late" to collect any new grist for the mill.

The discussion so far has shown a progression from rather vague, first meeting negotiations about the amount of time individuals expect to put in, to more specific negotiations over the amount of substance to be covered and the amount of repair work to be done, given the importance of the task and the amount of time left. Evaluation discussion appeared, but briefly, through the major part of groups' life cycles. For last meetings, evaluation was much more prominent--a recurring part of decisions to declare sub-tasks (and the whole paper) finished.

The influence of fatigue. As final meetings stretched on, fatigue and the deadline became more and more important factors in members' negotiations over quality standards. The Strategic Planners' final meeting of work on the paper provides some good illustrations of the confluence of factors that impinge on members in their final reconciliation between the desire for quality and the necessity to finish.

DIALOGUE 33. In the computer room at 9:30 pm on the night of the group's final meeting to work on the paper.

1 Jack: I got news for you. I don't know what's in this last 2 1/2 pages, but--it looks good to me. I just want to get this done. I don't want to be

like the other group--they're just getting their [assignment for another class done, overdue].

2 Bert: Really? I didn't know that was an option (smiling).

(They get out their copy of the paper and look at it.)

3 Jack: I really want to put a limit on this. I'm ready to cut my losses. Okay, are you ready, Bert?

4 Bert: I just want to do a few more things.

5 Jack: Come on Mr. Rajeev--vite, vite!

(At 9:45 the group is back in a meeting room to go over the draft one last time.)

6 Jack: I'm willing basically to go with how it is...but I'd--

7 Bert: We could tinker endlessly with this thing--

8 Jack: But I'm also willing to hear the comments from the late great Rajeev Krishnamurti.

9 Bert: Rajeev and I were saying that we'll let [this part] flcw out of the technical back-up.

10 Jack: I'm not sure the technical back-up flows, but--we're going to be shown up on our graphics.

11 Bert: Oh, Bill Wilson (member of another group in the class) is a maniac. He goes all out on everything!

12 Jack: (Closes the door.) He's also still next door. I'm a great satisficer.

13 Bert: Well, Bill's definitely an optimizer. I'd like to have someone like that working for me.

(They read their draft, and make seven minor changes, in response to comments from Bert and Rajeev.)

14 Rajeev: But before you change--I wonder if we should also include the idea that we based our ideas on--and we have an exhibit on that too.

15 Jack: Let's just put that in as extra. It doesn't really flow. My activities thing isn't in either.

16 Rajeev: Jesus!

17 Jack: No--just kidding.

18 Bert: It's getting late.

19 Jack: I'll run it off on the Diablo tomorrow.

(This signals that the paper is finished.)

This dialogue picks up when the group has been working about five hours. Jack says he is tired, and pushes for conclusion of the paper. His first statement shows his fatigue and his quality standards converging: "It looks good to me. I just want to get this done." Bert is also beginning to reach a point of diminishing returns for further "tinkering" with the paper.

The dialogue also shows the three men placing their work in the context of the competition. They compare their presentation with a group by whom they expect to be "shown up." But they apparently agree that a person who works that hard is "a maniac." By statement #13 they are very close to consensus that the work is good enough, and ready to go.

One way to interpret statements 8-19 is in terms of individual standards, and personalities. Jack knows Rajeev's standards are higher than his, and he is considerate enough to keep listening--up to a limit. Another way to look at the negotiation is that Jack and Rajeev implicitly agree to play the opposite roles: "let's quit," "let's make it better," and to find the stopping point by pushing until one of them blows the whistle. This is, what happened in statements 14-19. Rajeev makes one suggestion too many, Jack gets angry, and Bert's "It's getting late" signals quitting time. The decision that the paper is "good enough" is essentially the same as the decision that it is finished.

Summary of Completion Meetings

Completion meetings were set apart from other periods in groups' life cycles in two ways. First, the emotional tone was different--certainly more tense than the relatively easy time of Phase II. More significantly, the task work of completion was different from groups' previous work. Earlier in their life cycles, groups moved at different speeds, but all groups were engaged with the same general activities and issues at the close of their work. Here the groups were different, not because they were working on different aspects of the task, but because of the way they handled the same tasks and issues: matching the products to external requirements, equity, editing and evaluation.

```
┌─────────────────────────────────────────┐
│            Section III:                  │
│   SUMMARY, IMPLICATIONS AND CONCLUSION   │
└─────────────────────────────────────────┘
```

SUMMARY AND IMPLICATIONS

This paper has identified three types of sub-tasks and issues that groups deal with in developmental sequences: a task hierarchy, an interpersonal cycle, and an intergroup cycle. It discussed the effects of calendar time on the groups, and the pace at which groups fit their work into the time they have. For each of these areas, the empirical findings will be summarized; theoretical implications will be outlined; and normative implications will be suggested for managing task work in ad hoc groups.

The Task Hierarchy

Empirical Findings

The empirical findings about the processes teams in the sample went through as they developed their creative products can be summarized as follows:

1. Teams generally followed a logical sequence of steps:

    a. Task definition: Defining the task at hand, or the agenda for the group.

    b. Choice of direction: Given the task, deciding how to proceed with the work.

    c. Construction: Doing the work itself.

    d. Evaluation: Assessing what has been done and what else is needed.

2. The above sequence constrained teams' behavior without dictating it--i.e., it imposed some limits on what groups could do, without forcing an invariable work process on them.

    a. Teams did not always discuss every step explicitly, nor always settle every step in order. The CF Committee did not discuss task definition as such. The Novices folded choice of direction piecemeal into construction. The Policymakers did not explicitly choose a direction until several meetings of argument about what the details of their policy should be.

    b. Sometimes this "skipping" did not seem to matter--as with the CF Committee. Sometimes it mattered very much, as when teams were persistently unable to move ahead because they disagreed about a prior step. The Novices could not progress at all until they settled on a

task definition; the Policymakers could not progress with policy construction until they chose a goal.

3. Two of the teams went through the task hierarchy twice, showing its potential to be an iterative process.

Theoretical Implications

These findings suggest a theoretical picture of the kind of work within the domain of this research. We look first at the theoretical structure of creative production tasks, and then at some propositions about the behavioral options and constraints of the group work process.

Task structure. The findings of this research suggest the following four theoretical propositions regarding the nature and effects of group tasks.

1. The structure of creative production tasks is not well represented by linear models.

Problem-solving has sometimes been characterized almost as a linked chain of mazes, where the group first finds the correct problem definition, then the right set of alternatives, then the right solutions, in a linear and cumulative fashion.[14] This may be a useful way to think about problems with one right answer, or tasks such as computer programming where each step in a process must conform to a correct path before the work can proceed. For the type of task studied here, though, the area between the presenting problem and the finished, creative product is much more an open terrain.

2. The characteristics of the task itself, plus the group's understanding of the task, create an overlay on this terrain--a logical hierarchy of choices.

Figure III is a greatly simplified representation of this hierarchy. The total array of boxes on the chart equals the potential total of alternative options that could be generated to complete the task--options either "objectively" built into the task itself, or projected onto the task by team members' perceptions of it.[15] The list on the left side of the figure shows the hierarchy of choices that would be implicitly built into any product created to address the task assignment. Reading from the top down, the

---

[14] See Poole (1981) or Scheidel and Crowell (1964) for brief reviews and discussions of the difficulties with linear models of problem-solving in groups.

[15] Figure III is simplified in order to facilitate explanation. In reality, some task hierarchies are clear, with mutually exclusive branches, but most are fuzzier, with multiple and overlapping pathways between products and goals. Within the domain of this research, there are few task hierarchies with no objective boundaries. Thus, both an assignment to create a one-act play and an assignment to design a gymnasium would allow vast opportunities for choice, but the contents of the boxes in the two task hierarchies would clearly be different and easily distinguishable from one another.

Group's Task Assignment

Implications Inherent in
Potential Products

Work Behaviors

Alternative Task Definitions

Defining the Task

Alternative Goals

Choosing a Direction

Alternative
Products

Constructing
the Product

Products'
Potential
Performance

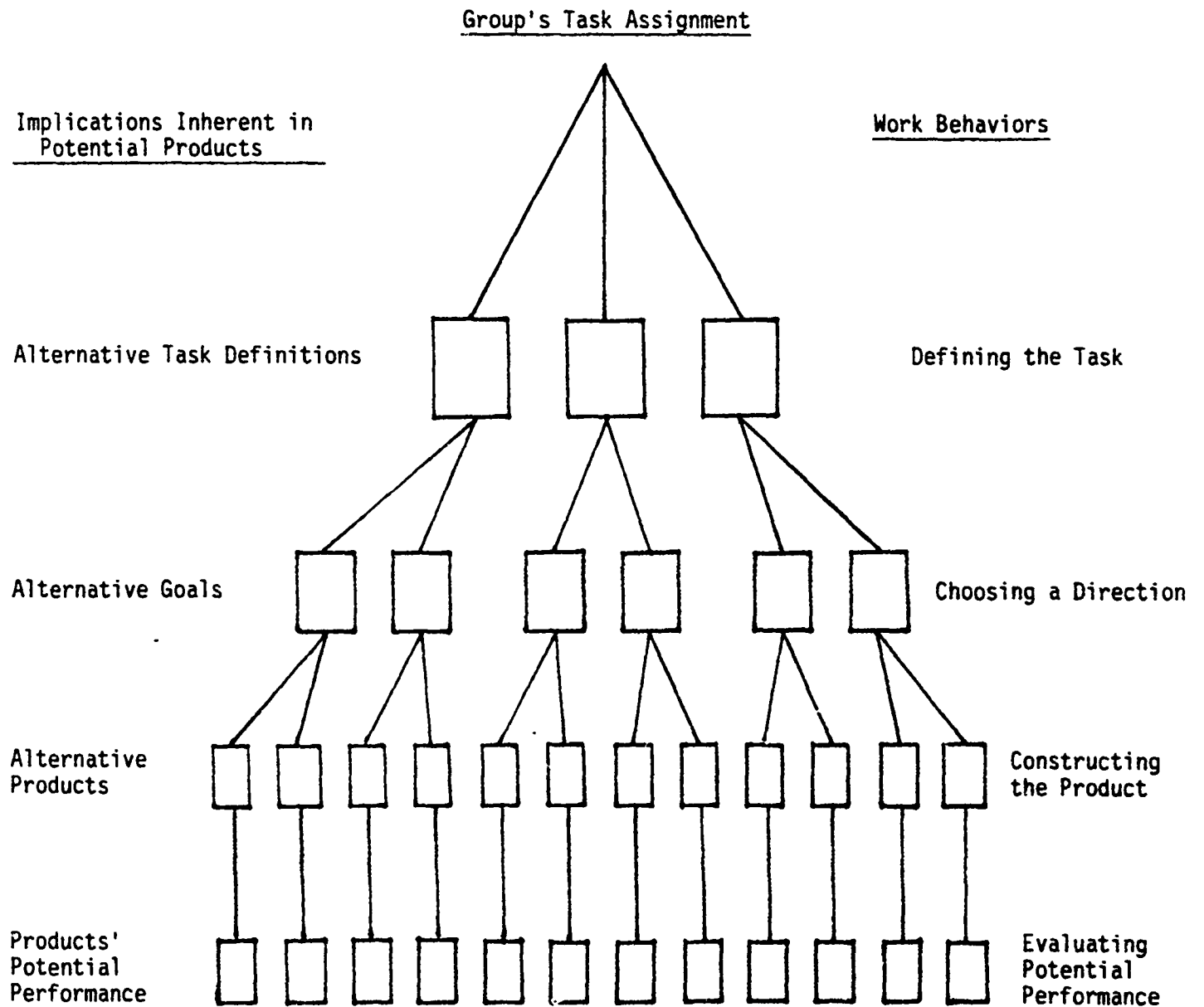Evaluating
Potential
Performance

FIGURE III

The Hierarchy of Task Work

assignment suggests an array of possible definitions of what the task problem is "really" about. Each task definition suggests an array of general product goals, each of which suggests one or more possible concrete product designs. The bottom line of the hierarchy, performance, indicates the potential performance of each completed product design. The list on the right side of the figure shows the behaviors that a group exhibits when it is working on each level--reading from the top down--discussing or negotiating a task definition, discussing or negotiating a direction for the work, constructing the details of the product, and evaluating it.

3. A given choice <u>at any point</u> on the hierarchy carries with it a given set of related choices up and down the hierarchy, and excludes other sets of choices.[16]

To illustrate: the hierarchy in figure III could be read from the bottom up as well as the top down. Each potential product incorporates within itself an implicit set of assumptions about the goal and definition of the task.

4. The task hierarchy is a logical structure of choices and options, not a structure of behavioral imperatives.

Though it may be easier for a group to work from the top down in an orderly fashion, the group does not necessarily have to do so, certainly not explicitly. This is because ideas do not interact with the inevitability of atoms. Groups can and do ignore the "logic" of a task and produce poor work--plans that are internally illogical, inconsistent with their own stated goals, or inappropriate to meet the problem they wanted to address. Such outcomes would be impossible if all the implicit choices behind a product could force their inherent order on a group's behavior.

Just because the logic of a task hierarchy does not impose behavior on a group, this does not mean that it does not affect group work processes at all. There are, undoubtedly, logical limits on the possibilities of having coherent working discussion in a group without some level of adherence to the sequence. This is easy to see in an extreme case. One person working on an analysis of Hamlet, plus one person working on an employee benefit plan are not going to add up to a coherent group discussion unless they stop and define a common task. It may be less easy to see, but equally true, that when two people are exchanging direct volleys about Shakespeare, or about employee benefits, the task <u>has</u> been defined in the interweave of their conversation.

<u>Structure of the work process</u>. Three observations about groups' behavior in progressing through creative production tasks can be derived from the empirical and theoretical statements above:

1. A group must have a minimum of, at least apparent, agreement about one step in the hierarchy in order to carry on a minimally coherent argument about the next.

---

[16] This conceptualization draws from Simon's (1976) explication of the hierarchy of premises underlying purposive organizations.

2. Given enough implicit agreement, it is possible for a group to "skip"
   forw d to a later step, without explicit discussion of prior steps. This
   implicit agreement may arise from the fact that team members begin work
   with clear, shared assumptions about the task, or from the fact that the
   task itself is clear and obvious.

3. Group work on creative tasks is often an iterative process. The idea that
   teams "once and for all" define the task, then "once and for all" choose a
   direction, and so forth, probably makes sense only for very simple
   problems. More often, groups go through multiple task hierarchies, as
   they move from broad to precise levels of specificity, as they move from
   disparate chunks of a complex task toward a picture of the whole, and as
   they revise their work.

Normative Implications

There are two basic types of group problems that can be understood and
addressed in terms of the task hierarchy.[17] The first occurs when a group
"violates" the logical sequence of the task by skipping ahead in the hierarchy
when there is insufficient clarity and agreement about prior cho'ces. Figure
IV shows a theoretical representation of this situation. Member one is trying
to work on product a, and member two is trying to work on product 1. The
dotted line on the left of the figure shows the implicit choices behind member
one's product, and the dotted line on the right shows the implicit choices
behind member two's product. Notice the distance between them. While the
team's discussion occurs at the level of detail, team members may,
unwittingly, be quite far apart in the implicit task or goal definitions from
which they are working. If team members are arguing, this can result in a
series of seemingly petty disagreements on every point of detail. In any
case, they may be talking past each other, failing to "connect," or amassing
pieces of work that do not add up to a unified whole. In such a case, it
would be appropriate for the team to back up, for explicit negotiation of
disagreements and clarification of their task and goals.

The second type of problem is represented in Figure V. The solid boxes
show that the team is discussing potential goals for their project. The
dotted lines show the concrete options that are not part of an exclusive
discussion of goals. The difficulty enters when a team becomes stuck at a
high level in the task, unable to move ahead because of indecision or

---

[17] This paper focuses on the kind of problems with communication, negotiation,
and agreement that are particular to group work. There are other types of
task problems that can occur with individual or group work. For example,
either an individual or a group might skip directly from receiving an
assignment to constructing the (agreed upon) solution, without explicitly
examining any of the interim choices about task definition or goals. This
is similar to the process described by Cyert and March (1963) and by Cohen,
March, and Olsen (1972) when they talk about people carrying ready made,
pet "problems" and "solutions" with them into new choice situations. As
they point out, such a work process rarely solves anything. In large part,
this is because the solution may be only tenuously connected to the
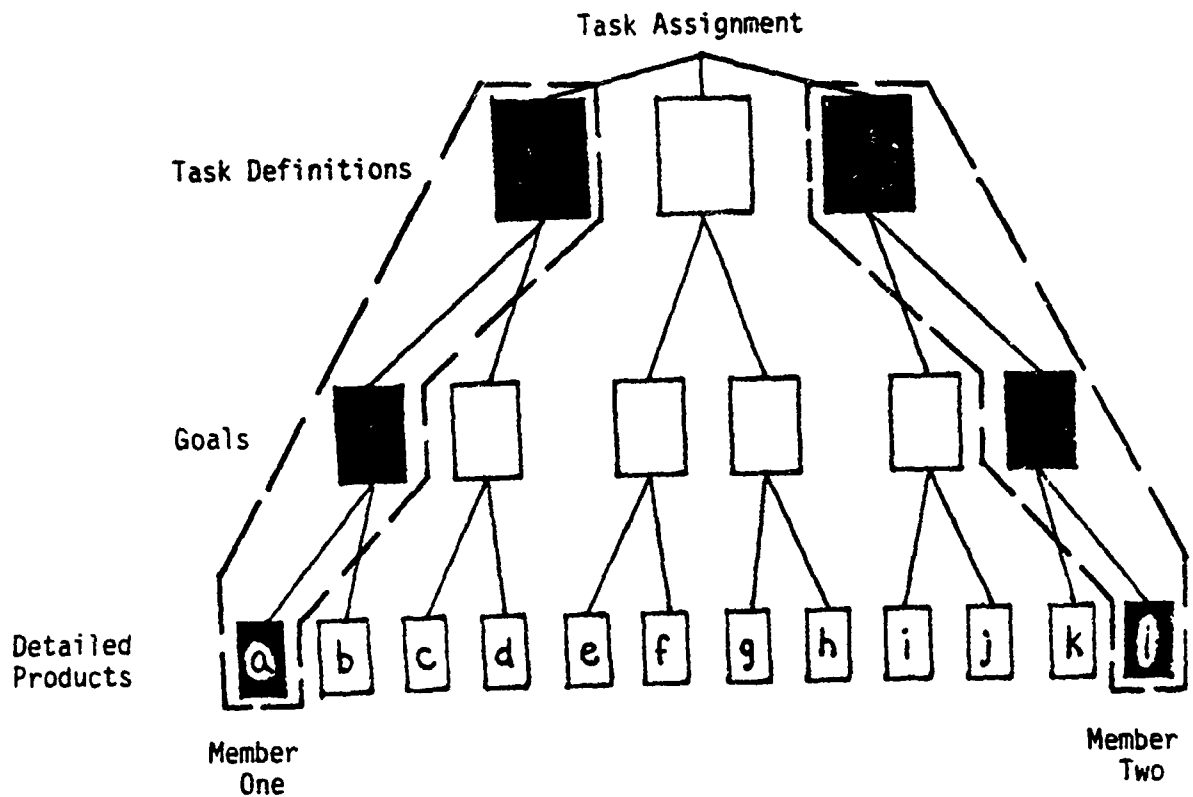original problem.

Task Assignment

Task Definitions

Goals

Detailed
Products

Member
One

Member
Two

FIGURE IV

Discussion of Product Design Without Sufficient Agreement on Task/Goals

.Task Assignment

Task Definitions
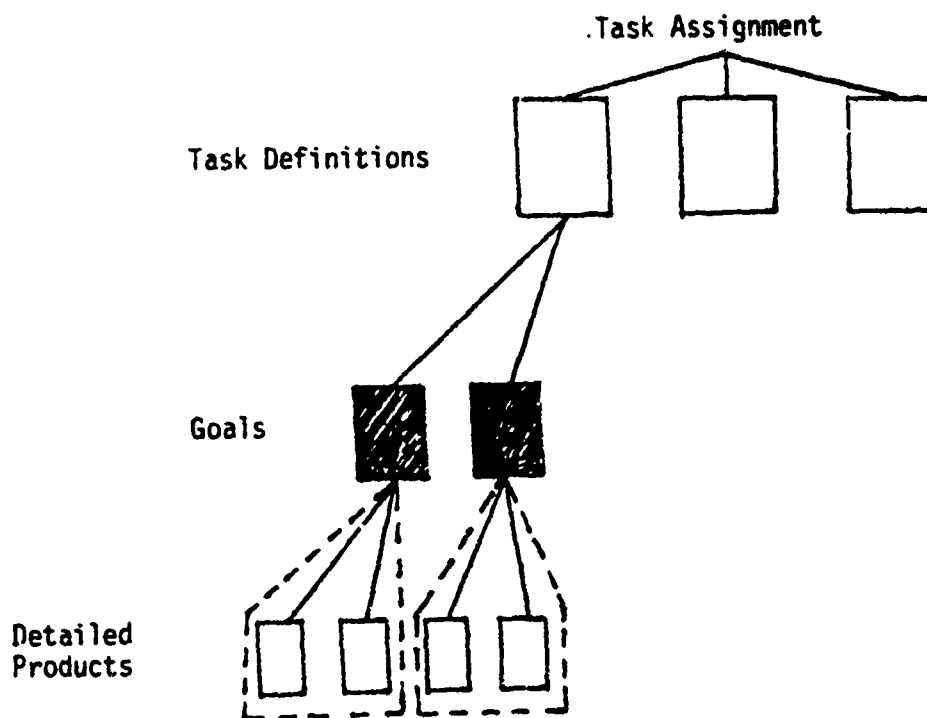
Goals

Detailed
Products

FIGURE V

Discussion of Goals Without Sufficient Details About Implications for Products

disagreement on task or goal definition. The potential pitfall of staying on this level for too long is the lack of detail at this point in the task hierarchy. Goals can be quite vague until they are fleshed out, further down the hierarchy; and arguments about goals can become repetitive, each side repeating its own preferences without adding new material to the discussion. In this case, the iterative quality of task work suggests that it might be appropriate for the team to consider agreeing on one choice for the moment--long enough to get some construction work done--with the expectation of cycling back to the original debate later. This would give the group a chance to move through to evaluation work, and start moving through the task hierarchy again with the benefit of more information.

The difficulties that groups may experience are not all due to problems in the task hierarchy. The hypotheses here identify some reasonably specific conditions where it might be useful to jog the group's task work one way or the other. Going backward is best suited to clarifying the group's task and goals, when members are not working on the same track. Going forward is best suited to generating new information about a particular choice or dilemma, when the group is stalled in repetitive indecision or debate. In other cases, going backward or forward might not be the issue. (A good example of this would be a difficult argument, where the team has not fully explored the extent of a disagreement at its "highest" level. The important problem for the group members in that case would be to stay where they are without running away from the debate.) The following sections will touch on problems that may occur in other areas of groups' lives.

The Intergroup Cycle

Empirical Findings

Although teams' attention to outside stakeholders varies in complex ways over time, all four teams showed similar patterns of variation.[18] There were two general empirical findings. First, the amount of attention teams paid to outside stakeholders was high at the very beginning, middle, and end of their life cycles, and low in-between.[19] Secondly, teams showed positive interest in different outside stakeholders at different times. They gave much more consideration to clients than supervisors at the beginning of their life cycles, and they did not give full consideration to supervisors' requirements

---

[18] "Outside stakeholders" are individuals or groups who are not members of a team, but who have important stakes in the team's work. For the groups in this paper, outside stakeholders were the groups' supervisors and clients; however, there are many other possible constellations of outside stakeholders for the type of group in the research domain.

[19] If a group's task is to achieve some change in a client, as in Thompson's (1967) "intensive technology," attention to the client would be relatively constant. What is meant here is awareness of an outsider as a subject with opinions about what the group ought to do, vs. more clinical attention to an outsider as an object to be worked on.

until the middle or end of their life cycles.[20]

At the beginning of teams' lives, they showed substantial interest in their clients. Teams sized the clients up, asking "What do we think of them?" "What do they want or need that we could provide?" "What kind of product would they accept or reject?" At the same time, teams explicitly challenged their supervisors. The Novices and the Strategic Planners both mentioned assignments they had been given, and decided not to do them. The CF Committee's first topic of discussion was to question the assigned task and the assigned group of members, given the reactions they anticipated from the clients.

At the middle of teams' lives, supervisors played strong roles in group transitions. The CF and Strategic Planner teams became dramatically more sensitive to their supervisors, using information about requirements to revise their products. The two slower teams' supervisors each took actions that resulted in major steps forward in teams' progress, removing a member from the Novices' group, and requiring a presentation from the Policymakers.

At the end of teams' lives, all teams focused considerable attention on outsiders. The student teams were especially aware of instructors' requirements and the way their work might be evaluated. The CF Committee was particularly mindful of how agencies' use of their product might affect the CF organization.

In between these times, during Phase II and most of Phase I, teams' attention turned inward, as they debated with each other, or constructed the details of their products.

Theoretical Implications

There are at least two different, but complementary hypotheses that might account for the empirical findings.

1. Teams' attention to outsiders is a function of their contact with outsiders.

The beginning of a team's life is a critical point of contact between the team and the outsiders who have formed the group and presented the task. At least some time is needed to translate "their" problem into "our" problem. For this sample, outsiders made their influence felt at the mid-point by actively intervening. At the end point, groups anticipate handing the finished product over, as well as being evaluated, so outsiders again become more salient.

---

[20] Throughout this discussion, "supervisor" will refer to the person or organization that gave the team its assignment, and "client" will refer to the subject or recipient of the team's product. In the observed teams, supervisors and clients did not overlap; however, this is not always the case.

The most important question posed by this hypothesis has to do with the mid-point contacts between teams and their supervisors. For two of the teams, it is unclear whether supervisors suddenly "tried harder" to impress their point of view on the teams, or whether teams suddenly started listening more, without being sent any different messages. The interesting possibility is that supervisors, as well as teams, feel an extra "transitional push" to do something about an ad hoc project at its mid-point in calendar time.

2. Teams' attention to outsiders is a function of developmental issues in their life cycles.

Where a team is in its development affects both its propensity and its capacity to relate to outside stakeholders--whether the group will be more likely to seek or ignore outside influence in general; how easily members can use different types of information; and what members will look for in the information outsiders present to them.

If it is true that teams' interactions with outsiders are importantly affected by developmental issues, how does this come to pass? The empirical findings suggest three different areas where outsiders tie in to teams' life cycles: dependency issues, task activities, and team identity.

Dependency issues. Teams in the domain of this research must make independent decisions while conforming to external requirements. Because they are doing delegated, creative work, they have some built-in developmental challenges. That the task is delegated implies that a supervisor wants to influence the group's work without doing it for them. That it is creative means that uncertainty and choice are necessary to the design process; the product cannot be fully specified in advance. So, on one hand, the group is being "paid to think," and must make some independent decisions. On the other hand, unless they make sure their work is influenced by outside stakeholders, it may be rejected as unacceptable (and they may receive poor evaluations). The developmental task for the group is to find the right balance of independence from, and sensitivity to, outside stakeholders.[21]

The empirical findings can be understood as one way of handling that task. At the beginning, the teams were each "chauffeured" to a particular location--i.e., they were given definite assignments to do, and some definite instructions and requirements. Their initial problem was to take over the driver's seat and get going. The counterdependence may have been their means of taking the wheel. One way of viewing the transitional shifts is that, after teams had a chance to work on their projects, they felt enough in control to be able to accept outside influence from supervisors. A slightly different view would be that, by the time they got to transition, they were feeling the deficiency of outside influence that they themselves had created,

---

[21] When outside stakeholders make conflicting demands, not only must the group manage its own relationship with each stakeholder, it must construct some resolution of stakeholders' conflicts with each other. Whether the group does this intentionally or unintentionally, its response to stakeholders' demands will be embodied in the choices it makes about the product. This was clearly the case with the CF Committee.

and were righting the balance. This presents an overall picture of teams as setting an initial stance with regard to dependence on outside stakeholders, working with it for a while, and then using transition times to readjust relationships in the directions needed.[22] An area for future research will be to see if there are predictable relationships between the initial clarity of the assignment, the amount of contact between group and supervisor, and the group's initial and transitional stances on dependency.

Task activities. A team's search for the right balance of independence and sensitivity to outside stakeholders does not happen in a vacuum. It happens very much in terms of their work on the task. Three separate task activities or issues can be highlighted, in which the development of teams in this domain interacts with their relations with outside stakeholders.

1. Teams alternate between being open and closed to new information. It is consistent with the hypotheses about the task hierarchy that work in this domain calls for an alternation between being open and being closed to new information, (on successive levels of the task hierarchy). Optimally, a team will be open to information--including information from outside stakeholders--when it is generating alternatives, mapping out its task and exploring the possible options it might pursue. It must become much more closed to new information in order to make decisions, since the pursuit of any one plan will exclude others. (As Simon, 1976, pointed out, it is not possible to get much done if one is continually reconsidering what to do in the first place.) Once a team's product is complete enough for a "shakedown cruise," it can again open up, using outside criteria to evaluate and revise its work. The observed teams' interest in clients at the beginnings of their lives appeared to help them explore what their tasks were about. They turned their attention away from outsiders during construction work, then renewed it again as they revised their products.

2. Teams are most likely to seek information at the level of the choice at hand. Defining the task, considering alternative directions, filling in details on a particular choice, and evaluating a product call for different categories of information. If the developmental process involves a volume control, it also affects the channels to which groups are tuned. The teams in the sample looked toward different information sources at different "open" times in their work. As mentioned above, teams discussed clients--who were the subjects of the projects in the observed groups--while they worked on defining their tasks. They relied substantially on information about supervisor requirements while they were evaluating and revising their products.

---

[22] Such an interpretation is equally consistent with a different scenario of group development. A pattern described as typical of training groups (Mann, Gibbard & Hartman, 1967) provides an interesting reverse image of the observed groups. In the Tavistock setting, the group often begins as overly dependent on a leader who sits with the group, but gives very little direction. The group eventually reaches a crisis of confrontation, and may throw the leader out.

3. Teams must be far enough along in their work to understand information about advanced steps in the task hierarchy. Point two, above, is about the kind of information that teams are likely to seek out. This point is about teams' ability to use information, depending on how far along they are in the work process. The Strategic Planners provided a good illustration of a team that wished to use the instructors' requirements, relatively early in their life cycle, but couldn't because they were "not there yet." The usual belief that "people don't plan" may misread a more complex reality--that there are limits to people's ability to use information that skips many levels ahead of where they are in figuring out a task. For example, product requirements[23] may seldom be meaningful to people until they have a relatively clear sense of what their product is.

Team identity. The two areas above deal with teams' sense of independence in decision-making, and their collection and use of information about the task. The third point has to do with identity issues: how the team as a whole places itself in relation to outsiders, and how members fit together as a team, given their individual stances toward outside stakeholders.

1. Apart from dependency questions, a team doing creative work for outside use must define its own identity in relation to important stakeholders in order to define its agenda. It must develop some general sense of what it expects to provide the outsiders, and where it stands in the constellation of relationships among team, supervisor, and client (or whatever outsiders are relevant).

Defining such a stance may or may not be problematic for a team; may or may not be done explicitly; and may unfold in terms of any number of specific issues, depending on the situation. A couple of examples illustrate: The CF Committee did not even accept their task until they were satisfied that it was, indeed, legitimate for their supervisor (CF) to relate to their client (CF's member agencies) as an evaluator. And as the Strategic Planners evaluated their work, part of deciding how much was enough, was the decision of whether the team should relate to the client as a professional-quality group, with a responsibility to uphold their school's reputation; or as a group of unpaid students, whose major responsibility was simply to do well on a class assignment.

2. To the extent that a team must define its stance toward outsiders in order to do its work, the match among individual members' orientation toward outsiders affects the group's ability to coalesce into a working unit.[24] This

---

[23] "Requirements" refer to specific things that must or must not be done in carrying out the task.

[24] Given the extensive literature on the effects of intergroup relations on interaction within groups, it is worth a reminder that the present paper is confined to the role of outside stakeholders in task group development. See Rice (1969) for a discussion of group members as representatives of outside groups; see Alderfer (1983) for a discussion of the effects of the intergroup context surrounding a team on processes within the team.

was an important problem for two of the four sample teams. It was a live issue for the Novices. As long as they were divided into factions "for" and "against" the client, they could not agree on what their project should be. It was a historical issue for the CF Committee. For three years, CF had tried and failed to design an evaluation procedure with agency representatives. The observed team had been restricted to people from CF and "neutral" professionals specifically "because agencies want to know 'how's it going to affect me'." For each of these two teams, members' conflicts about outside stakeholders were "solved" when one of the warring parties was removed from the team.

In future research on ad hoc task groups, it will be important to see what happens in this type of conflict when there are no official changes in team membership. For the observed groups, transitions marked changes in the dependence/independence relationship with supervisors, as well as broad shifts in attention from one outside stakeholder (client) to another (supervisor). The CF Committee, in particular, shifted from a client-centered, to a CF-centered solution to their problem. It will therefore be especially interesting to see what changes occur at transition time, both within the team and between the team and outside stakeholders.

Normative Implications

The normative implications of the findings and hypotheses about the intergroup cycle have to do with (a) the fit between groups' contact with outsiders and their development, and (b) the initial design of the team.

Fit between contact and development. The findings above suggest the importance of the match between the timing-and-content of groups' contact with outside stakeholders, and the group's own stage of development. First, there seem to be times when contact, in general, has a chance to be more helpful, and times when it may be less helpful, or even detrimental to the work process. For the observed groups, the beginning/middle/end timing of contact with outsiders seemed appropriate. It coincided with start-up, transition, and completion periods; groups were open to new information, and engaged in considering or evaluating choices.

To the extent that contact forces groups to consider new information, it is easy to see why poorly-timed contacts can hinder a group's progress. If outsiders repeatedly present a group with information about choices while the group is doing construction work (after choices have been made and before the group has gotten enough done to evaluate) not only will they miss the best opportunities to be heard, but they risk undermining the group's ability to establish and carry out plans. If a group's attention is too much riveted on outsiders' wishes, it may be unable to wind up decisionmaking and move into construction work. (This is so because the unpredictability of creative tasks makes it extremely unlikely for groups to second-guess perfectly what outsiders would want.) These are instances where, because of factors originating in the outside stakeholders, the group, or both, the group does not have sufficient independence to commit itself to choices about the work. On the other side of the scale, if a group and outsiders make too little use of "open periods" to communicate, the work may wind up being inappropriate for its required purposes.

Beyond the general question of when groups do best with a high vs. low volume of contact, is the question of fine-tuning. Even when teams are sensitive to outsiders, they listen selectively. At times, it may be necessary to overcome a group's tendency to attend to some outside messages and ignore others. For example, both managers and groups might do well to consider that a team's receptivity to information about requirements may be low at the beginning of a project, while the team is preoccupied with task definition or goal-setting. Special effort might be necessary to get that information across when it is "out of sync" with the team's development, and the information might be worth repeating when the team has completed enough work to be able to use it well.

Design of the group. CF's experience with (and without) agency representatives, and the Novices' battle about their client, show the importance of the composition of a team—who the members are and whom they represent. This has much to do with how team members will work together around questions concerning outside stakeholders, and with how the team as a whole will relate to its outside context. A series of implications follows, for managers considering the use of ad hoc groups to do special projects.

The first is that, even when it seems straightforward, the task of designing some new plan or product in an organization may carry with it a much more complex task, of designing new relationships among a set of stakeholders. It is worth a manager's time to think beyond the presenting problem, about the groups who are affected by it and their potential reactions to the project under consideration.

By delegating the project to a group, a manager creates both an opportunity and a necessity for some degree of political negotiation to become an integral part of the design process.[25] This might be more or less desirable, depending on the circumstances. The implication is that it is worth considering whether or not the best way to accomplish a given project is to delegate it to a team—and if so, what combination of members would do the best job, both of designing the project and of designing the relevant stakeholder relationships.

These questions, though freshly illustrated by the current data, are not new to organizational research. Vroom and Yetton (1973) provide an excellent model for thinking through when and how much to delegate a task. Van de Ven (1980a, b) describes a thoughtful and ingenious method for incorporating stakeholder negotiation as well as expert design into group project work.

The Interpersonal Cycle

There are many facets of interpersonal life in groups. This paper has focussed particularly on issues of cooperation and equity in collective task work. It has examined members' interactions with each other in establishing how much work the group will do, and how it will be divided up. The cases

---

[25] The place of negotiation in task groups in the domain of this research will be discussed in the section on pace.

have provided empirical data on the way these issues play out over time, and on different ways groups handle them.

Empirical Findings

1. A cycle of behavior was identified. At their first meetings, groups negotiated about the time and effort that individuals expected to contribute, and to require of each other. Then a concrete division of labor and influence developed in each group, as they did their work. There was scattered evidence that, overlapping this, members were weighing up their own perceived share of work and influence. Finally, members moved to balance the score, either by renegotiating the distribution, or (especially at the end of a group's life) by expressing their resentment or satisfaction with the way they felt things worked out.

2. Each group's division of labor was done differently. There was a major difference in the importance of equity between the CF Committee and the student groups; and there were differences across groups in how satisfactorily members divided up work and rewards.

   a. Equity was not a visible issue for the CF group, where the most work, as well as the most influence, was given to the member who was most invested in the task. Equity was an important issue for all three student groups. CF appeared to balance work and influence for each individual member, allowing large differences among them. For the student groups, all expecting "equally shared" group grades, it appeared much more important to members that each should get the same share of work as the others.

   b. The earlier and the better teams negotiated their division of labor, the more satisfied members appeared to be with their teammates. The Strategic Planners, who had a confrontative negotiation to plan their division of labor early in the group's life, appeared most satisfied with each other's contributions to the project. The Novices tried to distribute the work in equal shares, but planned inaccurately. They ended up having a moderately uncomfortable "post hoc" confrontation to redistribute the final bit of work. The Policymakers did not do any negotiation to plan the division of labor, nor any confrontation after the workload began to get lopsided. They displaced equity concerns onto substantive arguments about the task, and ended up with some members feeling resentful about their share of the work.

Theoretical Implications

The findings summarized above suggest the following two theoretical implications:

1. How well members will do at apportioning the work of the group is affected by two key variables: members' willingness to share the work equitably, and the accuracy of their knowledge of the amount of work to be done.

2. Equity entails a matching of team members' rewards to their contributions on a project. If, in a team's design, rewards are fixed at equal, there will be more pressure on a team to fix members' contributions at equal. However, if the design allows some room for individual tailoring of contributions and rewards, it is possible for members to achieve equity without requiring the mechanical equality of each one's contribution.

Normative Implications

While equity might not be of identical concern for every group or task, the evidence here suggests that when it does become a problem for a group, it can have serious consequences both for the work itself and for the relationships among team members. The findings and hypotheses above have some implications for the management of equity, in team members' interactions with each other, and in the design of the group.

Members' interactions with each other. If knowledge of the task and willingness to share are the qualities that make for equity in group work, then planning and confrontation, respectively, are the activities important for achieving it. Based on the cases, planning and confrontation are more easily done early than late, and better done late than never.[26] This is especially so since, once equity problems begin, they are more likely to persist and snowball than go away (as shown in the example of the Policymakers).

To anticipate and forestall equity problems, a team might begin by assessing its knowledge of the work. Especially if this is low, it might build in opportunities to correct for inexperience--e.g. by scheduling re-negotiations of its division of labor in advance, before things can become too uneven. Members might keep in mind, too, that planning creative work assignments is not entirely a matter of fact. An important part of the process involves people's subjective feelings about how the work should be distributed. This is where confrontation--stating one's individual preferences--and negotiation among team members should legitimately enter into the planning, if members are to be satisfied with the group in the long run.

The design of the group. The observation that reward systems affect work behavior has been made repeatedly since management science began (e.g. Taylor, 1911). The current sample illustrates this connection by showing that different reward systems can set up different kinds of equity pressures for groups. An implication of this is that it may be helpful to think about the fit between team composition and the rewards of a project at the time a team is being designed. If the best collection of people for a project includes members who vary widely in the amount they have to gain from it, the team might consider building in a way to help balance contributions and rewards for

---

[26] It would be unrealistic to suggest that every team or every team member would always stand to gain more from openly confronting equity problems than from putting up with them quietly in a temporary group. However, it does seem important to be aware of the potential costs, to future working relationships and to the product, when weighing whether or not a confrontation would be worth trying.

each member. One way to do this would be to allow for stratified contributions and rewards to match the status quo--i.e. by planning different work loads for people with different investments in the work. Another way to do this would be to try to change the status quo, by making the project more attractive to membe... with less initial investment in it. Conversely, if the best way to evaluate a team's work appeared to be at the whole-group level, the team's designer might exert an extra effort to see that team members were well-matched as to their potential for contributing to the whole--i.e., by choosing team members with similar amounts of motivation and skill to apply to the work.[27]

The Effect of Calendar Time on the Group

Empirical Findings

Throughout this paper, calendar time has been used as a framework for illustrating continuity and change in ad hoc task groups. The main empirical findings about groups' progress through time were:

1. Each group's life progressed in four distinguishable sections:

    a. Phase I: For each group, a set of substantive issues and interaction patterns came up at its first meeting, and then persisted through the first half of its calendar time.

    b. Transition: At the middle of its time, each group experienced major changes in these issues and patterns, and made major steps ahead in its work. This happened at about the same time in each group's calendar, despite the fact that groups were at _different_ points in their development.

    c. Phase II: Each group experienced a period of harmonious and productive work following its transition.

    d. Completion: Close to their deadlines, all groups experienced another major shift. All stopped the construction work they had just been doing, and switched to an identifiable set of "finishing up" activities, as they prepared to present their products to the outside world.

---

[27] This discussion of equity makes some theoretical assumptions. It is assumed that an individual's potential contribution to a piece of work is a function of the knowledge, skill, and effort that the person can apply to the task. While knowledge and skill are more stable attributes, effort is assumed to be a motivational issue, importantly determined by the (tangible and intangible) rewards a member expects to get from a project. The word "investment" has been used to indicate expected rewards here. For the four teams in the current sample, problems of unequal contributions appeared to be perceived as problems in effort, not problems with unequal knowledge and skill. However, perceptions of unequal talent among members can and do cause equity problems in groups.

2. The kind of substantive issues and interaction patterns that were characteristically constant within Phases I and II, and changeable during transitions, were:

    a. A group's general approach to its task:
        --Whether the group was indecisive, decisive, or argumentative about what to do.
        --Whether the group was methodical and systematic, or disorganized and wandering in the structure of its meetings.
        --The set of topics the group focussed on as the content of its decisions, indecision, or arguments.

    b. Group members' internal relations:
        --The coalitions and/or battle lines that united or separated particular members.
        --The general characteristics of the group's boundaries: i.e. schedule, location, and length of meetings; attendance at meetings.

    c. A group's relations with outside stakeholders:
        --The group's stance toward its supervisor: e.g. counterdependent vs. responsive.
        --Which outsiders the group attended to, and what it found salient about each.

3. The aspects that did not remain constant during Phases were:

    a. Groups' gradual accumulation of work on their tasks, sometimes through several steps of the task hierarchy.

    b. Groups' accumulation of experience in their intra-group and inter-group relationships.

Theoretical Implications

A pair of theoretical implications can be drawn from these findings:

1. Groups' lives progress in distinct chunks, rather than smoothly and gradually. A group's general approach--to its task, its intra-group relationships, and its intergroup relationships--is established at the beginning of a time segment, remains constant for a substantial portion of its total available time, and then changes with a noticeable spurt as the next segment of time begins.

2. The points when major changes occur are determined by group members' sense of time (how much has passed, and how much is left) more than by its cumulative progress through developmental steps. Because it provides a natural vantage point for groups to reckon how much work they can do with the time they have, the middle of a project's calendar is a potentially powerful stimulus for transition. However, groups with very long time spans, or groups whose tasks had (known) schedules of their own, might experience more than one mid-point transition.

The independence of developmental progress and time-linked change is perceptible only when one sees that a group can work through several developmental steps without changing its basic approach (as the two faster groups in the sample did) and that, alternatively, a group can stretch one or two developmental steps to fill an entire portion of its calendar (as the two slower groups did). The relation between a group's work within a section of time, and its transition, can be loosely compared to the relation between a period of gathering data and a period of organizing it into a report, in a research project. It is not the absolute, cumulative amount of data that has been gathered, but the decision to stop collecting and start organizing it, that makes the report "happen." At the same time, the quality and quantity of data bears directly on the quality and scope of the report.

Because the observed groups were so similar, they raise theoretical questions as well as hypotheses. For example, all four teams in the sample had conspicuous transitions--and successful ones. (In each case, changes were initiated that advanced the group's work, and launched members into a productive Phase II.) Under what conditions would there be no transition--either no progress at all, or progress in even increments, with no special turning points? Under what conditions would transitions get started but result in detrimental changes, or just not result in any changes at all? How malleable is the timing of transitions? Must a group's clock be "set" ahead of time, so members can subconsciously pace themselves to be ready for transitional change, or would any, arbitrarily-placed but forceful demand for progress jump a group ahead? These are questions for future research.

Normative Implications

These findings have implications for the timing of interventions into short term task groups. The power of the beginning of a time segment to predict the course of that segment highlights the importance of the first meeting and transition. There are two possible interpretations of this. One is that each group member comes to the first meeting with certain perspectives on the task and on the other members. Like chemicals mixing, the combination of members into a group yields an inevitable reaction, and the reason the first meeting resembles subsequent meetings is that they are all of a piece. A second interpretation is that the first meeting, unpredictable in itself, is a powerful stimulant of the group's subsequent direction. Interpretation one suggests that a group leader should be very careful in selecting and preparing members for the group, then allow the first meeting to run, and use it to see what issues the group needs to deal with first. Interpretation two suggests that first meetings should be very carefully engineered in progress, in order to set the group on course.

Regardless of which of these two approaches is taken toward the first meeting, the current model directs a person who would influence a group to manage Phase I with the expectation that the group will reach a point when it is ripe for a major transition, and that this transition will provide the opportunity[28] to resolve Phase I problems and re-evaluate Phase I decisions. The observed continuity of Phase I implies that a group "needs" to work with

---

[28] "Opportunity" must be distinguished from "guarantee," of course.

whatever material it started with until a critical amount of experience with the group/task and impatience for progress accrues in the group members. Therefore, a leader might be well advised to prepare her or his best efforts for change to coincide with that transition time. Similarly, relations between the group and outside stakeholders might be most fruitful for both when contacts are timed to coincide with transitions. A group that is feeling stuck or a group that has sped ahead with one problem-solution may find it helpful to seek outside consultation around a transition time. In addition, an outside manager might find a group more receptive to help at such times.

Pace

Empirical Findings

The final focus of the paper is pace--the way groups fit their progress through the task hierarchy into calendar time. Major differences in pace were found between a pair of slower teams, each of whom went through the task hierarchy once, and a pair of faster teams, each of whom went through it twice within the calendar time-spans of their projects.

These differences in pace arose out of the large discrepancies in the amounts of time teams took to define their tasks and choose their directions, not out of differences in how fast they did their construction work. Members of the slower teams were uncertain about how to proceed with their tasks, and disagreed with one another about what the work was about and where it should go. They spent all of Phase I on task definition and choice of direction. In the faster teams, members were confident about how to interpret their tasks, and agreed with one another about what to do. They went through task definition and choice of direction very quickly. By the time the teams reached Phase II, all four were doing construction work, and the size of the (pace) gap between them was stable.

Theoretical Implications

The work of task definition and choice of direction is primarily decision-making and choosing: forming agreements about what the group will do. In contrast, the work of construction centers more on carrying out decisions that have already been made. The first theoretical implication drawn here is that for groups in the domain of this research, the pace of work has very much to do with the amount of negotiation that they do.

It is important to keep in mind the special focus of this paper, on groups that have been delegated the responsibility to design and create collective products. Undoubtedly, many factors such as worker skill and motivation, task difficulty, quality of resources, and managerial support affect the pace of individual work (and work given to groups with little responsibility for collective decision-making.) The distinctive feature of groups in the domain of this research is that, not only are they not told exactly what to do, the individuals within them cannot simply decide what to do and then do it. There must be some agreement about what to do--enough agreement to generate a minimum of participation, otherwise there is no real

group product. For any given issue, there may be no individual differences or disagreements in the group. Then there is nothing particular to discuss, and the group may move "as one." It is when there are differences or disagreements that the benefits and problems of having this kind of group can enter, and this is where negotiation comes in.

The cases suggested two main elements of the amount of negotiation a team will do: the team's readiness to work on the task, and team members' readiness to work with each other. These two elements can be construed slightly differently, and discussed in terms of the amount of structure the team perceives in the task, and the inclination of group members to agree with one another, respectively.

1. The more structure a group perceives in a task, the less negotiating the group will do, and the faster their pace will be. In doing a task, a group answers two basic questions: what to do, and how to do it. When a group of people receives a task, they may perceive it as structured, clear, and pre-determined--or as ambiguous and undetermined on each of these questions. The group's view of the degree of clarity in a task will be referred to as perceived task structure. Perceived task structure (or ambiguity) comes from the interaction of the assignment itself, with the cognitive maps that group members bring to it.[29] Perceived task structure affects the amount of negotiating a team will do in several ways. Most generally, the more perceived structure there is in the task, the fewer decisions there are to be made, and the fewer opportunities the team has to negotiate. Even if the content of a design ("what to do") is entirely open-ended, there are significantly fewer decisions to be made if the team has a structured process ("how to do it") for organizing their work, than if members don't know where to begin. This was illustrated by the contrast between the Strategic Planners and the two slower teams. Secondly, the less the task is perceived as ambiguous, the less it is open to individual, and therefore varied, interpretations and agendas. This showed in the higher visibility of preconscious material in the discussions of the slower, vs. the faster teams. Thirdly, the more perceived structure in the task, the more the task itself appears to guide what members do, and the less occasion there is for members to struggle over control of the group. (See Kerr & Jermier, 1978, on task structures as substitutes for leadership.)

2. The more group members are inclined to agree with one another, the less negotiating a group will do, and the faster their pace will be. There are both cognitive and motivational aspects to the disposition of a group of

---

[29] To illustrate: A highly structured task assignment might include a comprehensive statement of the steps to be followed in doing the task, while an ambiguous or unstructured assignment might specify very little about what to do or how to do it. A group of team members with very little skill or experience might find even a structured assignment baffling, whereas a group with a high degree of experience or professional training might impose their own structures (cognitive maps) on an unstructured assignment. Note that the inexperienced group might take longer to figure out how to do the work and be more likely to discover a novel approach than the group who came to a task with a pre-defined structure.

people to agree with each other. Depending on the particular task and group composition, members will be more or less motivated to work together, vs. struggle for control over a project. With enough centrifugal force in a group, even the most "straightforward" task can become controversial, and vice versa. To some extent, however, the motivational sources of disagreement in groups have been stressed at the expense of our view of the cognitive (see Balke, Hammond & Meyer, 1973; Brehmer, 1976). If members have quite similar cognitive perceptions of a task (e.g., they all have the same professional training) they can be expected to have less to negotiate than a group whose members understand the task in very dissimilar terms.

Normative Implications

The implications of this connection between negotiation and pace lead first to a set of predictions about how much and what kind of negotiation to expect, given particular combinations of group and task. The predictions can be generated by asking two pairs of questions. First, how structured is the task assignment itself, and how much structure are team members likely to bring to it? Secondly, are team members more likely to agree or contend with one another in this group, on this project; and how convergent or divergent are their cognitive approaches to the task likely to be? Negotiation could be expected to rise either with high perceived ambiguity in the task, or with high contentiousness or divergence in the group. It could be expected to fall either with an increase of perceived structure in the task, or with increased convergence in the group's membership.

For any given group and task, it might be important to consider whether to work for more or less negotiation on the project. This is the point at which an intervention can be selected, to suit the situation in the group. For example, if a team is designed expressly to bring together people with quite different expertise, some attention might be devoted to making sure that members are understanding the important assumptions implicit in each other's reasoning, as well as each other's conceptual vocabularies, as the project unfolds. A different approach for groups that are high on divergence but low on time would be the nominal group techniques of Delbeq, Van de Ven, and Gustafson (1975). This intervention pares down negotiation time by imposing a strong procedural structure for decision-making. It aims to elicit diversity of ideas while cutting down on interpersonal jockeying. It is equally important to consider the possibility that a team might do too little negotiation. If team members are too averse to conflict, or too often in agreement, they may be in danger of jumping to ill-considered conclusions. Janis' (1971) explication of groupthink, and his recommendations for inserting debate and deliberation into a group, show the other side of the coin.

CONCLUSION

This study was begun with a provisional goal of defining "the" sequence of behaviors that characterizes the life cycle of ad hoc task groups. In fact, there were some striking and important similarities among the four groups in the sample. At this point, however, it is clear that the research does not lead toward a descriptive model of that kind. There is too much variation for any one description to be very accurate. Groups simply do not always begin at the beginning and work through a series of steps in order, nor does "skipping around" necessarily hurt their products. Furthermore, groups' life histories may be dissimilar in quite nontrivial ways, as shown in the contrasts between the faster and slower teams.

The mix of similarity and variation observed here suggests a different research goal: that it is more appropriate to look for a logic of group development than a fixed portrait of it. This was easiest to see in those areas where groups diverged from one another: in their task, interpersonal, and intergroup behavior, and in the pace of teams' work. The analysis of groups' movement through calendar time was somewhat different. Since this finding was entirely unexpected, it was fortunate that the four groups were so much alike. The alternation between continuity and change, and the timing of major transitions were more visible as consistent patterns because they were the same across groups. Clearly, though, the lack of variation makes it harder to distinguish theory from description--to anticipate conditions under which the patterns might be altered, and to tease out an underlying logic.

Accordingly, the next step for this research is not to see whether new groups will look the same as teams in the sample, but whether the same (or different) variables appear, and whether they interact consistently with the hypotheses proposed here. This calls for further exploration with teams whose tasks, organizational settings, and memberships provide ample possibility for variation, while still falling within the domain of the theory.

In sum, the hypotheses that have emerged from this study offer the prospect of using descriptions of groups' lives to deduce some of the logic that regulates their life cycles. Such a step from description to theory would provide versatile tools--for diagnosing the state of groups that don't match an average description, for understanding why and when some of our existing interventions succeed or fail, and for creating new interventions. A good theory could help teams use developmental currents to control their progress, rather than simply describing the stream as they drift down it.

REFERENCES

Alderfer, C. P. Group and intergroup relations. In J. R. Hackman & J. L. Suttle (Eds.), Improving life at work. Santa Monica, CA: Goodyear, 1977.

Alderfer, C. P. An intergroup perspective on group dynamics. In J. Lorsch (Ed.), Handbook of organizational behavior. Englewood Cliffs, NJ: Prentice-Hall, 1983.

Bales, R. F. Interaction process analysis. Cambridge, MA: Addison-Wesley, 1950.

Bales, R. F. & Strodtbeck, F. L. Phases in group problem solving. Journal of Abnormal and Social Psychology, 1951, 46, 485-495.

Balke, W.M., Hammond, K. & Meyer, D. An alternate approach to labor-management relations. Administrative Science Quarterly, 1973, 18, 311-327.

Barnard, C. The functions of the executive. Cambridge, MA: Harvard University Press, 1968.

Bell, M. A. Phases in group problem solving. Small Group Behavior, 1982, 13, 475-495.

Bennis, W. & Shepard, H. A theory of group development. In G. Gibbard, J. Hartman & R. Mann (Eds.), A theory of group development. San Francisco: Jossey-Bass, 1974.

Bion, W. R. Experiences in groups. New York: Basic Books, 1959.

Brehmer, B. Social judgment theory and the analysis of interpersonal conflict. Psychological Bulletin, 1976, 83, 985-1003.

Cyert, R. & March, J. A behavioral theory of the firm. Englewood Cliffs, NJ: Prentice-Hall, 1963.

Cohen, M., March, J. & Olsen, J. A garbage-can model of organizational choice. Administrative Science Quarterly, 1972, 17, 1-25.

Dalkey, N. C. The Delphi method: An experimental study of group opinion. Management Science, June, 1969.

Delbecq, A., Van de Ven, A. & Gustafson, D. Group techniques for program planning. Glenview, IL: Scott Foresman, 1975.

Dewey, J. How we think (New ed.). Boston: D. C. Heath, 1933.

Fisher, B. A. Decision emergence: Phases in group decision-making. Speech Monographs, 1970, 37, 53-66.

Gersick, C. G. The life cycles of ad hoc task groups: Time, transitions, and learning in teams. Unpublished doctoral dissertation, Yale University, 1984.

Hackman, J. R. The design of work teams. In J. W. Lorsch (Ed.), Handbook of organizational behavior. Englewood Cliffs, NJ: Prentice-Hall, in press.

Hackman, J. R. & Oldham, G. R. Work redesign. Reading, MA: Addison-Wesley, 1980.

Hare, A. P. Handbook of small group research (2nd ed.). New York: The Free Press, 1976.

Helmreich, R., Bakeman, R. & Scherwitz, L. The study of small groups. Annual Review of Psychology, 1973, 24, 337-354.

Janis, I. Groupthink. Psychology Today, November, 1971.

Kerr, S. & Jermier, J. Substitutes for leadership: Their meaning and measurement. Organizational Behavior and Human Performance, 1978, 22, 375-403.

McGrath, J. E. Groups: Interaction and performance. Englewood Cliffs, NJ: Prentice-Hall, 1984.

McGrath, J. & Kravitz, D. Group research. Annual Review of Psychology, 1982, 33, 195-230.

Mann, R., Gibbard, G. & Hartman, J. Interpersonal styles and group development. New York: John Wiley & Sons, 1967.

Nagao, D., Vollrath, D. & Davis, J. Group decision-making: Origins and current status. In H. Brandstatter, J. H. Davis & H. C. Schuler (Eds.), Dynamics of group decisions. Beverly Hills, CA: Sage, 1978.

Osborn, A. F. Applied imagination (Rev. ed.). New York: Scribners, 1957.

Poole, M. Decision development in small groups. I: A comparison of two models. Communication Monographs, 1981, 48, 1-24.

Rice, A. K. Individual, group, and intergroup processes. Human Relations, 1969, 22, 565-584.

Roby, T. & Lanzetta, J. Considerations in the analysis of group tasks. Psychological Bulletin, 1958, 55, 88-101.

Scheidel, T. & Crowell, L. Idea development in small discussion groups. Quarterly Journal of Speech, 1964, 50, 140-145.

Seeger, J. A. No innate phases in group problem solving. Academy of Management Review, 1983, 8, 683-689.

Simon, H. Administrative behavior (3rd ed.). New York: Free Press, 1976.

Slater, P. E. Microcosm: Structural, psychological, and religious evaluation in groups. New York: Wiley, 1966.

Steiner, I. D. Group process and productivity. New York: Academic Press, 1972.

Taylor, F. W. Scientific management. New York: Harper Publishers, 1911.

Thompson, J. Organizations in action. New York: McGraw-Hill, 1967.

Tuckman, B. Developmental sequence in small groups. Psychological Bulletin, 1965, 63, 384-399.

Tuckman, B. & Jensen, M. Stages of small-group development revisited. Group and Organization Studies, 1977, 2, 419-427.

Van de Ven, A. Problem-solving, planning, and innovation. I: Test of the program planning model. Human Relations, 1980a, 33, 711-740.

Van de Ven, A. Problem-solving, planning, and innovation. II: Speculations for theory and practice. Human Relations, 1980b, 33, 711-740.

Van de Ven, A. & Delbecq, A. L. Nominal vs. interacting group processes for committee decision-making effectiveness. Academy of Management Journal, 1971, 14, 203-212.

Vroom, V. & Yetton, P. Leadership and decision making. Pittsburgh: University of Pittsburgh Press, 1973.

Zander, A. F. The psychology of small group processes. Annual Review of Psychology, 1979, 30, 417-451.